DOCUMENT RESUME

ED 423 658 EC 306 767

AUTHOR	Trach, John S.
TITLE	Research in Rehabilitation Counselor Training on Supported Employment and Transition.
INSTITUTION	Illinois Univ., Champaign. Transition Research Inst.
SPONS AGENCY	Office of Special Education and Rehabilitative Services (ED), Washington, DC.
PUB DATE	1998-07-00
NOTE	205p.
CONTRACT	H029F30036; H129K200721
PUB TYPE	Collected Works - General (020) -- Reports - Research (143)
EDRS PRICE	MF01/PC09 Plus Postage.
DESCRIPTORS	Adults; Decision Making; *Disabilities; Employer Attitudes; Graduate Students; Higher Education; Instructional Effectiveness; *Job Placement; Motivation; Personal Autonomy; Preservice Teacher Education; Severe Disabilities; *Supported Employment; Surveys; *Transitional Programs; *Vocational Rehabilitation; *Work Environment
IDENTIFIERS	Medicaid

ABSTRACT

This monograph contains eight studies on supported employment and transition conducted by graduate students in rehabilitation counselor training programs. Chapter 1, "Income Allowance Policies of State Medicaid Agencies as Work Incentives or Disincentives for ICR/MR Residents" (James A. Mayer and others), found in a survey of six Midwestern states that although some state Medicaid agencies have had work incentive policies for ICF/MR residents for some time, others continue to utilize policies that are a disincentive to work. Chapter 2, "Special Education Preservice Training: Competencies Related to Vocational Rehabilitation" (Debra L. Shelden and John S. Trach), found in a survey of 61 special education personnel preparation programs that fewer performance competencies were required than knowledge competencies. Chapter 3, "Analysis of the Types of Natural Supports Utilized during Job Placement and Development" (John S. Trach and Camille D. Mayhall), analyzed placements of individuals with severe disabilities in integrated work settings and found that supported employment professionals implemented primarily natural supports. Chapter 4, "Perceptions of the Supported Employment Job Search Process: Who Makes the Choices" (Amy E. Dwyre and John S. Trach), explores the issues relating to choice in the job selection process for individuals with cognitive impairments. Chapter 5, "Employers' and Service Providers' Perspectives Regarding Natural Supports in the Work Environment" (John S. Trach and others), found that employers who have used natural supports did not provide any natural supports to supported employees beyond those they would offer to other employees. Chapter 6, "Secondary Transitional Experience Program: A Descriptive Analysis of Outcomes of High School Exiters" (Jennifer R. Horn and others), found most exiters (n=18) were employed, living with parents, and involved in the community. (Individual papers include references.) (CR)

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Research in Rehabilitation Counselor Training on Supported Employment and Transition

John S. Trach

Foreword by
Richard P. Melia
and Beverlee Stafford

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RESEARCH IN REHABILITATION COUNSELOR TRAINING ON SUPPORTED EMPLOYMENT AND TRANSITION

John S. Trach

With the assistance of Sharon L. Haworth

July 1998

Transition Research Institute
University of Illinois at Urbana-Champaign

Funding for this research was provided in part by Grants *#H029F30036* (Office of Special Education Programs) and *#H129K200721* (Rehabilitation Services Administration) from the U.S. Department of Education, Office for Special Education and Rehabilitative Services (OSERS) awarded to the University of Illinois at Urbana-Champaign. Opinions expressed herein do not necessarily reflect those of OSERS.

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We would like to acknowledge the following people for their contributions to the completion of this project. First, we thank the graduate students who contributed to this monograph. They are the basis for this monograph. We would also like to thank the Office of Special Education and Rehabilitation Services and the Department of Education, especially Kathy Niemi and Alan Ellis of the Rehabilitation Services Administration, Region V, and Mark Goldfarb of the Office of Special Education Programs, for providing the encouragement for the completion of this monograph. We also thank Thomas Mills and David Lange for the fine job they did editing the manuscript. In addition, thanks are extended to Richard Melia and Beverlee Stafford for writing the Foreward and for their encouragement in the provision of quality services to people with disabilities.

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Title	**Authors**	**Purpose**
Income Allowance Policies of State Medicaid Agencies as Work Incentives or Disincentives for ICF/MR Residents	James A. Mayer Laird W. Heal John S. Trach	To examine whether state Medicaid agencies in HCFA's Midwest Region have adopted policies for post-eligibility treatment of income that could be considered work incentives for ICF/MR residents.
Special Education Preservice Training: Competencies Related to Vocational Rehabilitation	Debra L. Shelden John S. Trach	To examine the extent to which special education preservice personnel preparation programs address training in competencies related to vocational rehabilitation.
Analysis of the Types of Natural Supports Utilized During Job Placement and Development	John S. Trach Camille D. Mayhall	To investigate the frequency with which various types of supports were implemented, their stability and duration of use, and the variety of employment settings accessed.
Perceptions of the Supported Employment Job Search Process: Who Makes the Choices?	Amy E. Dwyre John S. Trach	To identify how each significant member of a supported employment job search team perceived the roles and expectations of all participants in the job search process, and to examine how these perceptions may have related to the actual choices made.
Employers' and Service Providers' Perspectives Regarding Natural Supports in the Work Environment	John S. Trach Shelly E. Beatty Debra L. Shelden	To investigate how natural supports utilized by supported employees are perceived by employers and two groups of rehabilitation agency personnel.
Secondary Transitional Experience Program: A Descriptive Analysis of Outcomes of High School Exiters	Jennifer R. Horn John S. Trach Sharon L. Haworth	To determine outcomes achieved by individuals with disabilities who exited a collaborative work study program in high school involving both the Department of Special Education and the Department of Rehabilitation Services.
The School-to-Work Transition: Importance of Social Skills for Successful Employment	Kristin V. Sachs John S. Trach	To identify the social skills valued in large corporate offices.
Impact of Cooperative Education on Career Development for Community College Students With and Without Disabilities.	John S. Trach Jocelyn Harney	To assess students with disabilities who participated in a co-op work experience and to identify the effect of that experience on their establishing and clarifying a sense of purpose and developing mature interpersonal relationships.

Participants Involved	**Significant Findings**
ICF/MR Residents	1. Incentive Policies: In Wisconsin, Michigan, and Indiana individuals retain 50% of their monthly income above a minimum earned income exclusion, below which they retain 100%. 2. Disincentive Policies: In Minnesota, Ohio, and Illinois individuals were allowed to retain only a flat maximum monthly amount of their earned income, with the remainder going toward cost of care.
Special Education Personnel Preparation Programs	1. Those competencies most frequently required include transition services definitions and models, legislative history, and supported employment definitions and models. 2. Those competencies least often required include knowledge of counselor competency roles, vocational rehabilitation status codes, and vocational rehabilitation funding sources.
State rehabilitation counselors, adult agency program coordinators, and school personnel	1. Training supports were used most frequently, followed by social supports. 2. None of the 52 social, physical, organizational or community supports was provided by a job coach.
Supported employees, supported employment agency service providers, and parents or guardians	1. Service providers tend to overestimate choice levels of supported employees, while parents/guardians tend to underestimate it. 2. A lack of communication between supported employees and service providers regarding preferences is evident.
Service providers and employers who had participated in SPANS training, and service providers who had not participated in SPANS training	1. Employers did not provide natural supports to supported employees beyond those they would offer to other employees. 2. Sheltered work service providers expressed more unrealistic expectations regarding natural supports than their counterparts who had received SPANS training.
Individuals who had participated in a cooperative work experience program (STEP) in high school	1. 77.8% of individuals were working at the time of the interview. 2. 17.6% (N = 3) reported taking classes at a community college. 3. 88.9% lived at home with their parents. Others lived in group homes or in their own homes with support. 4. 100% reported involvement in some type of community activity.
Hiring professionals from corporations employing 500 or more employees	1. Interpersonal, listening, and personal qualities were ranked as most important to job success.
College sophomores who had completed a cooperative education work experience (7 with disabilities and 7 without disabilities).	1. Disability alone is not a determinant of successful career development. 2. Cooperative work experience has a positive impact on career development for students with and without disabilities.

FOREWORD

Richard P. Melia, Director, Division of Research Sciences,
National Institute on Disability and Rehabilitation Research

Beverlee Stafford, Director, Planning, Policy & Evaluation
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Teaching research to rehabilitation counseling students need not be boring. That is a key message in "Research in Rehabilitation Counselor Training on Supported Employment and Transition." Moreover, John Trach's students show that meaningful contributions to the rehabilitation field can be made while also helping a rehabilitation counseling program meet the Council on Rehabilitation Education standards for study units and courses (Council on Rehabilitation Education (CORE), 1991). The CORE standards call for counseling education programs to present units and courses on (1) rehabilitation research literature, statistics, methods, and types of research analyses; and (2) design of research projects and consultation on survey procedures and needs assessment approaches.

What do the papers that follow in this volume tell us about implementation of the CORE standards at University of Illinois at Urbana-Champaign? The eight student studies present a wide range of topics, methods, and study participants. In the aggregate, the papers have more than 230 citations from a broad range of rehabilitation research literature. Variety and a surprisingly high degree of conceptual sophistication are also present in the description and analysis. For example, recurring topics include such "cutting-edge" issues as natural supports, choice, program outcome measures, lifestyle planning, and career progression. Interagency program and legal responsibilities under the Individuals With Disabilities Education Act (IDEA), the Rehabilitation Act of 1973, as amended, Medicaid, the Social Security Act, and the Americans with Disabilities Act (ADA) are dissected. The papers also respond to what NIDRR Director Katherine Seelman identified to rehabilitation educators as the "challenge of change in our field... change generated by marketplace, advocates, technology and health care finance" (Seelman, 1998).

There is no hesitation in biting off tough questions either. For example, income allowances and their relationship to work incentives and disincentives is a topic that has challenged policy makers, economists, program evaluators, administrators, counselors, and individuals with disabilities and their advocates for years.

On-the-job supports and their relationship to successful employment outcomes is a critical area for further investigation. The effectiveness and benefits of "natural supports," as opposed to the traditional job coach model of supported employment is something that the field of rehabilitation needs to better understand and adopt.

Meaningful research questions, clear program goals, strong faculty support, solid methodological approaches, project "completion" requirements, and principles of authorship are characteristics of high quality student research in graduate settings (Delisa, 1998). These standards are clearly met by the collection of papers in "Research in Rehabilitation Counselor Training on Supported Employment and Transition." It is particularly rewarding to know that University of Illinois graduates will be applying the skills and methods learned in producing these papers to their professional careers. Some will enter teaching and prepare new generations of students to conduct research. Others will enter administration and direct services where their skills will improve the quality of outcomes for the individuals with disabilities who they serve.

Chapters II and V discuss the effectiveness of natural supports in the work place. While some argue that natural supports are just "smoke and mirrors" and that these are elements available to everyone in the workplace, the papers show that that is just the point! We must realize and accept that the natural supports that are part of most working environments are also the basis for successful employment outcomes for people with severe disabilities. We must build upon what is already available to an individual on the job.

In Chapter IV, Dwyre and Trach explore the issues relating to choice in the job selection process for cognitively impaired individuals. This is an area where much research and learning is needed. The concept of "informed choice" is difficult to get a handle on, especially for the population described in this paper. This paper represents another step towards a better understanding of this issue.

In conclusion, it is safe to say that the rehabilitation field was slow to embrace the concept of "supported employment." It is gratifying to know that these students will bring to the field more evidence of the efficacy and benefits of the supported employment model. Showing the field that natural supports, informed choice, careers, and lifestyle planning are important aspects of the overall issue of employment of people with disabilities -- not just in supported employment -- will bode well for the future of rehabilitation.

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DeLisa, J. (1998, February). Resident Research Policy. Paper presented to the Association of Academic Physiatrists, Department of Physical Medicine and Rehabilitation at the University of Physical Medicine and Dentistry of New Jersey, Indianapolis, IN: AAP.

Seelman, K. D. (1998, March). Change and Challenge: The Integration of the New Paradigm of Disability into Research and Practice, Paper presented at the National Council on Rehabilitation Education Annual Conference, Vancouver, Washington.

NOTE: The authors wish to note that the views expressed in this paper do not necessarily reflect the views taken by the U.S. Department of Education.

PREFACE

Training programs for rehabilitation counselors dispense theory, best practices, and supervised internships to prepare graduate students to provide services which reflect current technology and legislative directives. Within those training programs exist another area of preparation which should receive more attention, encouragement, and recognition. That area is the training of students in research techniques, analysis, and experience. While the complement of research and practice is widely recognized and valued, there appears to be a need for more demonstration and focus on the research practitioner as well as the practicing professional. This monograph illustrates what is possible when research is made a focal point in a training program.

This collection of student-initiated research projects reflects a philosophy of training that characterized a series of training grants from the Rehabilitation Services Administration *(Long-Term Training in Supported Employment)* and the Office of Special Education Programs *(Related Services Training for Rehabilitation Counseling in Transition and Supported Employment)*. The training was based on three notions: (a) masters students can do valued research, (b) small research projects can produce valuable information if done systematically and analyzed in context, and (c) research should make a difference to the researcher first in order to determine worth to the field. In other words, *we should expand the research focus beyond doctoral training, acknowledge that we do not need a large N to make a point, and not confuse significance with importance*. Thus, students were encouraged to take on research projects and to complete theses. They were - not to look for absolutes, but to deeply understand situations and circumstances. In addition, they were - not to put research into practice, but rather to practice through research.

As trainers for new and practicing professionals, we must encourage our students to ask questions such as: "Why do something?" and "How do you know it works?" In addition, being in such a dynamic field, we must continue to ask: "If what worked was good, is what is being proposed better?," or "How can we make services best?" Unfortunately, there will never be enough time in the busy day, nor will it be convenient for trainers to take extra time to assist students in the learning process. However, if we are to prepare truly autonomous, innovative, and excited professionals, we must provide them with the tools and experience necessary to perpetually refresh themselves- - to conceptualize, evaluate, and implement.

All eight papers in this monograph were completed as independent studies between 1990-1997. In addition, there were six master theses completed from this group, two *National Rehabilitation Association Graduate Literary Awards*, four first place and two second place *National Rehabilitation Counseling Association Student Paper Competition Awards*, seven papers accepted in peer-reviewed journals, and one still under review. Each manuscript reflects the authors' interest to know more about a particular topical area within some general aspect of employment. The findings represent significant areas in the daily practice of rehabilitation professionals and special educators in providing transition and supported employment services. The work here reflects pieces of the puzzle from which both the students and their advisor have grown in understanding and confidence. We all have our varied recollection of the process, work, and travail associated with completion. However, ask any one of us, and we would say that we would do it again in minute as we still feel the excitement of the process.

John S. Trach, Ph.D., CRC

Principal Investigator

CHAPTER I

INCOME ALLOWANCE POLICIES OF STATE MEDICAID AGENCIES AS WORK INCENTIVES OR DISINCENTIVES FOR ICF/MR RESIDENTS[1]

James A. Mayer, Laird W. Heal, and John S. Trach

Abstract: *Results of a survey of six Midwestern states demonstrated that although some state Medicaid agencies have had work incentive policies for ICF/MR residents for some time, others continue to utilize policies that are a disincentive to work. Policy changes toward employment incentives in state Medicaid agencies should improve work opportunities for workers with mental retardation at little expense to the government.*

In recent years, much attention has been given to the need for and the creation of work incentives for individuals with disabilities who receive Social Security benefits, namely, Supplemental Security Income (SSI) and Social Security Disability Insurance (SSDI) (Conley, Noble, & Elder, 1986; General Accounting Office, 1987; Gorski, 1987; Juhrs, Jennings, & McGill, 1986; Kiernan & Brinkman, 1988; Koehler & Ellis, 1990; Noble, Conley, & Elder, 1986; Social Security Administration, 1987; Szymanski, 1988; Walls, Dowler, & Fullmer, 1990). However, very little attention has been focused on the disincentives that exist in some states for individuals with disabilities who live in Medicaid-funded facilities such as, Intermediate Care

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[1] Reprinted with permission, with minor edits, from *Mental Retardation*, Vol. 30, No. 4, 215-219 © 1992. American Association on Mental Retardation.

Facilities for the Mentally Retarded—ICFs/MR (Boggs, Hanley-Maxwell, Lakin, & Bradley, 1988; Walls et al., 1990).

Intermediate Care Facilities for the Mentally Retarded range from smaller facilities (e.g., group homes with 15 beds) to larger facilities that resemble skilled nursing homes (Boggs et al., 1988). In most states, ICFs/MR tend to provide structured residential services to a more severely disabled group of individuals than those who reside in less restrictive group homes or apartment settings (Conley et al., 1986).

The common assumption in the past has been that little or no earning power can be expected of individuals with severe developmental disabilities, including those who reside in ICFs/MR (Boggs et al., 1988; Conley et al., 1986). A more "successful" ICF/MR resident might have been given the opportunity to earn a typical sheltered workshop paycheck of $29 to $131 per month (U.S. Department of Labor, 1979). However, as the supported employment option has emerged and grown, a significant number of individuals with severe disabilities have become successfully and gainfully employed in nonsheltered work settings (Kiernan & Stark, 1986; Rusch, 1986, 1990; Wehman & Moon, 1988). It is now not unusual to meet individuals with severe disabilities who are earning, through supported employment, wages at or above Social Security's Substantial Gainful Activity level of $500 per month (Koehler & Ellis, 1990).

Individuals who are working while living in an ICF/MR must abide by the policy of the Medicaid agency in their state of residence for determining "allowable income," that is, income that may be kept by the individual as opposed to that which must be applied toward the individual's cost of care (Code of Federal Regulations, 1989). The State Medicaid Manual (Health Care Financing Administration [HCFA], 1989) has updated federal instructions to the state Medicaid agencies regarding this issue of "posteligibility treatment of income" for institutionalized persons, including residents of ICFs/MR. The instructions mandate an increase in the minimum personal needs allowance, which generally applies to unearned income (e.g., SSI), from $25 per month to $30 per month. In addition, the Manual contains instructions on options available to the states to protect a higher amount of income:

> for all institutionalized persons who regularly engage in organized activities . . . because of the nature of their activities, or because retention of additional income derived from work is considered essential toward satisfying their developmental need to achieve a certain degree of independence; increased amounts protected for such needs may be related to the level of earnings (for example, as a percentage of earnings above the basic personal needs amount). (pp. 3, 8, 10, 11)

In effect, HCFA's new instructions have given the state Medicaid agencies an option to remove work disincentives for individuals who reside in Medicaid-funded facilities such as ICFs/MR. The present survey was conducted to examine whether state Medicaid agencies in HCFA's Midwest region have adopted policies for posteligibility treatment of income that could be considered work incentives for ICF/MR residents.

Method

Contact persons were identified for each of the six states within HCFA's Midwest region using two major sources: (a) the Medicaid Specialist at the HCFA Regional Office (Chicago) provided a list of Medicaid Eligibility Specialists within the state Medicaid agencies and (b) the Institute for the Study of Developmental Disabilities, University of Illinois at Chicago, provided a list of policy experts, primarily within state departments of developmental disabilities.

Contact persons were telephoned and asked the following questions: (a) What is your current state policy regarding the earned income allowance for individuals living in ICFs/MR? (Copies of the written policy were requested.), (b) What is your state's current personal needs allowance (unearned income allowance)?, and (c) Have policy changes toward work incentives been considered for individuals in ICFs/MR in light of new instructions in the State Medicaid Manual (HCFA, 1989)?

If the contact person who was initially interviewed was unable to respond to all three questions, we asked them to provide names of other persons who could provide the remaining information. The telephone interviews were conducted during April and May of 1990. Copies of the requested written policy were provided by all six surveyed states.

Results

Two distinct groups were formed on the basis of state policies (see Table 1): (a) Wisconsin, Michigan, and Indiana all practiced an incentive policy whereby individuals retained 50% of their monthly income above a minimum earned income exclusion, below which they retain 100%; and (b) Minnesota, Ohio, and Illinois all practiced a disincentive policy whereby individuals were allowed to retain only a flat maximum monthly amount of their earned income, with the remainder going to their facilities toward cost of care. It is interesting that, with the exception of the contact from Minnesota, none of the contact persons was aware of any work incentives being considered in light of the new State Medicaid Manual (HCFA, 1989) instructions. The three states that currently had incentive-type policies had had those policies for some time, predating the February 1989 Manual. Of the remaining three states, Minnesota had recently raised its earned income allowance from $50 to $80 per month, perhaps in response to

Table 1

Monthly Income Allowance and total Monthly Disposable Income for Residents of ICF/MR Facilities by State

State	Monthly earned income allowance	Unearned income allowance [a]	Total possible disposable income [b]
Wisconsin	$65.00 + ½ of remaining gross earnings	$40.00	$322.50
Michigan	$65.00 + ½ of countable earned income	32.00	314.50
Indiana	$16.00 + ½ of countable earned income	30.00	288.00
Minnesota	$80.00	49.00	129.00
Ohio	$65.00	30.00	95.00
Illinois	$20.00 + ½ of the remainder if less than $60	30.00	80.00

Note: Based on gross earnings at $500 per month (Substantial Gainful Activity Level).
[a] Personal needs allowance.
[b] Per month.

the Manual but this change did not allow for the incentive of a percentage-wise income retention as suggested by the Manual.

Using the calculation formats presented in the current state policies, we prepared Table 2 to illustrate the financial results of each state's policy for an individual living in an ICF/MR and earning $500 per month (Substantial Gainful Activity). The differences between the two groups of states are quite dramatic. Individuals living in Illinois, Ohio, and Minnesota would retain 10%, 13%, and 16% of their earned incomes, respectively, whereas individuals living in Indiana, Michigan, and Wisconsin would keep 52%, 56%, and 56%, respectively. These figures will vary somewhat depending on the individual's situation and his or her state's procedure for dealing with deductible expenses (see Table 2).

Table 2

Percentage of Earnings Applied Toward Cost of Care in ICF/MR Facilities Given Gross Earnings at the Substantial Gainful Activity Level

State	Amount allowed to resident	Amount applied toward cost of care [a]	Earnings required for cost of care (%)[b]
Illinois	$50	$450 - deductions (a)	90
Ohio	$65	$435 - deductions (b)	87
Minnesota	$80	$420 - deductions (c)	84
Indiana	$258	$\frac{(\$484 - \text{deductions (d)})}{2}$	48
Michigan	$282.50	$\frac{(\$435 - \text{deductions (e)})}{2}$	44
Wisconsin	$282.50	$217.50 - deductions (f)	44

Note: Based on gross earnings of $500 per month. All states are required by the HCFA to allow deductions for (1) a "reasonable" amount for the maintenance needs of a spouse or other dependents at home and (2) amounts for medical charges not covered by a third party. Additional deductions the states have opted to allow are detailed in notes a through f as follows: (a) In Illinois: income taxes, Social Security tax, transportation costs (work-related), lunch expenses (up to $.45 per workday, or $9.00 per month), required tool or uniform expenses, compulsory insurance, retirement, or union dues payments; (b) In Ohio: "institutionalized" individuals (includes ICF/MR residents) are allowed only the required HCFA deductions; (c) In Minnesota: work expenses including, but not limited to, income and Social Security tax withholdings and impairment-related work expenses (e.g., transportation, personal care, prostheses, job modification costs, and special medical costs); (d) In Indiana: (1) all mandatory payroll deductions except garnishments, (2) child care costs, (3) transportation expenses (job-related), (4) meal costs at work at $.60 per meal, and (5) other verified expenses that are required as a condition of employment; (e) In Michigan: only guardianship expenses, in addition to the required HCFA deductions; (f) In Wisconsin: monthly cost for resident maintaining own home plus required HCFA deductions.

[a] Letters in parentheses refer to letters in Note defining specific deductions.

[b] Assuming zero deductions.

Discussion

When examining the results of this survey, one wonders why ICF/MR residents would want to work 30 to 40 hours per week when they could work 10 to 15 hours per week and retain an identical amount of disposable income. Granted, individuals who are working might logically and reasonably be expected to contribute to their own housing and food expenses. In fact, most

Americans expect to spend 40 to 50% of their income for these combined expenses, as is the case for ICF/MR residents who live in states that practice work incentive policies.

Because two distinct groupings of states emerged from the survey (i.e., three states with work incentive policies and three with disincentive policies), we sought to find a reason for the groupings. The only possible connection identified relates to the notion of states having "209 (b)" status in relation to the Health Care Financing Administration and Medicaid. This status allows a state to have Medicaid eligibility standards which are more restrictive than those used for SSI eligibility.

With the exception of Indiana, there appears to be a distinct connection between a state having 209 (b) status and that state's use of a restrictive (i.e., disincentive) policy for allowable earned income. Of the six states surveyed, Illinois, Ohio, Minnesota, and Indiana were 209(b) states, meaning they elected (under Social Security Act, Section 1902[f] enacted by PL 92-603, Section 209 [b]) to base Medicaid coverage of individuals who were elderly, blind, or had disabilities on requirements that were more restrictive than those for SSI (Commerce Clearing House, 1990). Any Medicaid eligibility requirement in 209(b) states "may be no more restrictive than that in effect under the state's Medicaid plan on January 1, 1972" (Commerce Clearing House, 1990, p. 5921).

Because Indiana was an exception to the pattern, the issue of 209 (b) status and how it might relate to a state's policies for posteligibility treatment of income was discussed further with the Indiana Department of Public Welfare, Medicaid Policy Section (C. Stamper, personal communication, June 5, 1990). Stamper stated that 209 (b) status simply allows more restrictive state policies for Medicaid eligibility; however, posteligibility treatment of income is not, in terms of federal guidelines, linked to 209 (b) status. Further, according to Stamper, Indiana's posteligibility treatment of income policy came into being because of an effective lobbying effort for individuals living in Medicaid-certified facilities (e.g., ICFs/MR) and not because of any specific federal guidelines or regulations.

There appears to be additional evidence supporting the value of an effective state lobby for special groups of individuals in bringing about work-incentive-type policies with state Medicaid agencies. For example, individuals who are blind and who live in Medicaid-certified facilities in Illinois and Indiana qualify for a Plan to Achieve Self Support (PASS) whereby they can set aside amounts of income to achieve an independence-related goal. In Illinois, individuals in Medicaid facilities who are blind are allowed to retain the "first $85.00 of gross earned income plus one half of the amount in excess of $85.00" (Illinois Department of Public Aid, 1989).

As greater earnings through supported employment become a reality for more individuals with severe disabilities, it would seem logical, if not imperative, for state Medicaid agencies to adopt similar work-incentive posteligibility treatment of income policies for individuals living in Medicaid-certified facilities, such as ICFs/MR, where disability is required for admission. Beyond the clear benefits such policies could offer workers with disabilities, there would appear to be a strong financial rationale from the state's perspective. For example, if individuals were allowed to retain a reasonable percentage of income for personal spending and a PASS to set aside income, goals such as obtaining gainful employment and moving out of the facility might become realistic much more quickly than under a restrictive, disincentive policy. They might use their allowable income and PASS income to purchase items needed for the eventual move or to save for a damage deposit on an apartment. In this scenario, the Medicaid agency PASS would differ from an SSI PASS in that a Medicaid PASS could work toward more independent living arrangements, whereas the SSI guidelines work toward more independent vocational arrangements.

The money lost per month in the short term by the state Medicaid agency in allowing work-incentive policies would be minuscule when compared with the long-term savings involved when individuals with severe disabilities move out of Medicaid-funded facilities. For example, individuals living in an ICF/MR in Illinois and earning $500 per month would currently retain $50 and pay $450 to the facility (or approximately 9 days worth of their own cost of care). In this case, if they were allowed to save more income and pay less for care, they might eventually save the state Medicaid agency 30 days x $50 or $1500 per month as opposed to saving the agency $450 per month for the short term.

Some might argue that, as an entitlement program based on income, Medicaid should fund only the most needy, and, therefore, any recipients who live in facilities and work should be required to pay as much of their cost of care as possible until they are able to move out of the facility. This rationale, which implies a short-term savings for Medicaid, is clearly faulty. It assumes that individuals might act counter to human nature by working beyond a flat income allowance level without any personal extrinsic benefits. The fact that a number of people who live in ICFs/MR in Illinois, Ohio, and Minnesota are working to earn amounts well above the flat income allowance levels in their states is a tribute to them. However, the Medicaid agencies within these states cannot logically expect great numbers of individuals to respond in this manner. Schloss, Wolf, and Schloss (1987) stated that this dilemma for individuals with disabilities is the realization of greater financial benefits with part-time work as opposed to full-time work.

The results of the present survey demonstrate that in the Midwest HCFA region, three states practice policies that provide financial incentives to work for ICF/MR residents, whereas the remaining three states practice policies that provide financial disincentives for substantial work among ICF/MR residents. We hope that advocates will rally their efforts to effect change at the policy level for the states with disincentive policies. Several survey respondents indicated that the policy in question might be subject to a simple change in procedure whereby the administrative level of the state Medicaid agency proposes a change to a budgetary subcommittee of the legislature for official approval.

In a thorough literature search conducted prior to the present survey, we failed to identify any published material concerning the ICF/MR income allowance policies of state Medicaid agencies in the Midwest or elsewhere. The survey was undertaken in response to advocates of supported employees in Illinois. Thus, the Midwest HCFA region was chosen as the geographical area for initial study. As the general Medicaid policy literature does not single out the Midwest as a particularly restrictive region, we assume that disincentive income allowance policies exist in other regions of the country. A future survey of the remaining regions might prove beneficial for individuals with disabilities and their advocates.

Future policy development in states not offering financial incentives for employment should be consistent with the current employment focus. Specifically, future policy should be developed in light of federal legislation such as the Education of the Handicapped Act Amendments of 1983 and 1986 (PL 98-199 and PL 99-457), the Employment Opportunities for Disabled Americans Act of 1986 (PL 99-643), the Omnibus Budget Reconciliation Act of 1987 (PL 100-203), and the Americans with Disabilities Act of 1990 (PL 101-336). These pieces of legislation specify employment as a desired outcome, identify processes for promoting employment, and remove disincentives to employment. State Medicaid policies should no longer be a barrier to employment, but rather an incentive for ICF/MR residents to become employed and ultimately integrated into the community.

Postscript

Since the initial policy survey was conducted in 1990, Illinois has made only a minor modification to its work disincentive policy for ICF/MR residents. Illinois still limits the retention of earnings by people who live in an ICF/MR setting by a maximum of $50.00. This limit places a disincentive for these individuals to earn more than $50 per month. However, Illinois has developed a Medicaid policy that does allow ICF/MR residents to retain all of their earnings from a job if they are "employed in a Supported Employment Program funded under Title VI of the Rehabilitation Act of 1973" (Illinois Department of Public Aid, 1990). Thus, the disincentive has been removed for ICF/MR residents in this program. The unfortunate aspect of this policy is that it is limited to this particular funding source. Many individuals start working under a Title IV supported employment program covered under this policy, but later discover that the continuation of their funding reinstates the requirement that they retain a maximum of $50.00 of their earnings.

In terms of policy change efforts in Illinois, a legislator in the Illinois House of Representatives did attempt, in response to this article and advocacy efforts, to propose a policy change allowing ICF/MR residents to retain a reasonable percentage of their earnings from employment. However, the proposal was not approved by the House Health and Human Services Committee, presumably because of the current budget-trimming climate within Illinois state government. Advocacy efforts will continue in Illinois and other states to remove disincentives to work.[2]

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[2] *Illinois Department of Public Aid (1990). Aid to the aged, blind, and disabled manual. Springfield: Author.*

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CHAPTER II

SPECIAL EDUCATION PRESERVICE TRAINING: COMPETENCIES RELATED TO VOCATIONAL REHABILITATION

Debra L. Shelden and John S. Trach

Abstract: *Sixty-one programs which received funds for preparation of special education personnel were surveyed. Research questions addressed the extent to which these programs were preparing special education personnel to work with vocational rehabilitation agencies and whether they were receiving training in vocational rehabilitation. Results indicated that certain competencies were offered fairly consistently while others were frequently omitted. Overall, fewer performance competencies were required than knowledge competencies, suggesting that though students may receive information on the vocational rehabilitation system, they have limited opportunities to apply that knowledge through practica and activities.*

The transition of students with disabilities from school to adult life commands a prominent position in the fields of special education and rehabilitation. Follow-up studies of special education graduates which revealed high unemployment and underemployment rates and a general lack of community adjustment resulted in concerns that students were not adequately making the transition from the educational service system to the adult service system. These studies also indicated that individuals leaving the educational system were often unable to enter directly into adult services because of a lack of knowledge of the system and/or a lack of planning. Thus, it would appear that despite programs to educate and integrate students with disabilities mandated by P.L. 94-142, The Education for All Handicapped Children Act of 1975, students are not prepared adequately for the transition from school to adult life. In 1984 the U.S. Department of Education, Office of Special Education and Rehabilitation Services (OSERS) promoted transitional services as an educational priority for students with disabilities (Will, 1984). In the previous year, the transition initiative gained legislative support with the passage of P.L. 98-199, The Education of the Handicapped Act Amendments of 1983, which called for the inclusion of transition services in the educational programs of students between the ages of 13 and 21. Since the passage of P.L. 98-199 in 1983, transition and related services have continued to receive legislative support (e.g., P.L. 99-506, The Rehabilitation Act Amendments of 1986; P.L. 101-476, The Individuals with Disabilities Education Act of 1991).

Many factors influence the failure of the transition process, including inadequate training of personnel to facilitate transitions (Baker & Geiger, 1988). Few preservice programs for personnel preparation in special education address the unique personnel needs of secondary special education or the expanding roles of special educators resulting from transition and supported employment services (Baker & Geiger, 1988; Kregal & Sale, 1988; Renzaglia, 1986).

Transition has expanded the roles of secondary special educators beyond that of just classroom instructor to such roles as job developer, job placement specialist, employment specialist, and adult service liaison. Currently these roles are being filled by individuals not specifically trained to provide transition services (Baker & Geiger, 1988; Renzaglia, 1986). Instead, training needs are being partially met through inservice programs and on the job learning. A more effective, efficient means of personnel preparation may be to design preservice training which addresses the new demands on secondary special education resulting from these new roles.

The need for personnel specifically trained to implement transition services was addressed in 1984 when OSERS funded nine university programs to prepare leadership transition personnel. In 1987, OSERS funded 13 university training programs to prepare direct service transition personnel. Results of a survey of these 13 programs identified 14 main competency areas, including (a) philosophical and historical considerations; (b) general transition concerns; (c) professionalism; (d) advocacy; (e) knowledge of agencies; (f) knowledge of systems change; (g) legal aspects; (h) working with others; (i) development and management of individualized plans; (j) planning and organizing instruction; (k) assessment, delivery, and evaluation of instruction for community living; (l) assessment, delivery, and evaluation of job training; (m) administrative functions; and (n) research (Baker & Geiger, 1988). Similar competency areas are also outlined by transition and supported employment researchers for both secondary special educators (Renzaglia, 1986; Weisenstein, 1986) and supported employment specialists (Kregal & Sale, 1988; Renzaglia & Everson, 1990).

Interagency coordination is a crucial component of many of these competency areas. Literature suggests that effective interagency coordination is a key to successful transition programs (Renzaglia & Everson, 1990; Szymanski, Hanley-Maxwell, & Parker, 1990; Wehman, Moon, Everson, Wood, & Barcus, 1988). Legislation (e.g., P.L. 98-524, The Rehabilitation Act Amendments of 1984; P.L. 99-506; and P.L. 99-457, The Education of the Handicapped Act Amendments of 1986) also refers to the need for cooperation between all agencies involved in the transition process. In addition, grants for personnel training have emphasized the importance of training programs which integrate knowledge of and experience with various professions and agencies (Baker & Geiger, 1988).

Experts have outlined competencies involved in effective interagency coordination (Baker & Geiger, 1988; Renzaglia, 1986). Knowledge of other agencies is one of the 14 competency areas identified by Baker & Geiger (1988). Of the other 13 competency areas, nine include specific competencies related to interagency coordination. Renzaglia & Everson (1990) identified three competency components for interagency issues found in current literature, including (a) an understanding of the roles of various professionals and agencies, (b) knowledge of funding sources and regulations, and (c) skills in cooperative goal planning.

At this time, the two primary transition services are special education and vocational rehabilitation. Secondary special educators prepare their students to enter into the vocational rehabilitation service system prior to or upon exiting the educational system. To facilitate the transition from one service provider to another, secondary special educators must demonstrate the many competencies involved in effective interagency coordination. Knowledge of the historical and legal base of the vocational rehabilitation system, its funding sources, eligibility requirements, the services available through vocational rehabilitation, the policies and procedures of the system, and the professional language of the system should assist special educators in working more effectively with vocational rehabilitation professionals.

Renzaglia (1986) suggests that preservice personnel training for secondary special educators should be a combination of a theoretical foundation and practical experience. This implies that special educators should complete coursework that provides information on the vocational rehabilitation system as well as complete internship and practicum experiences with vocational rehabilitation agencies. Such training recommendations prompt an examination of current personnel preparation practices.

The purpose of this study is to examine the extent to which special education preservice personnel preparation programs address training in competencies related to vocational rehabilitation. The following research questions will be examined:

1. Are special education personnel preparation programs providing training in vocational rehabilitation?
2. To what extent are special education personnel preparation programs preparing students to work with vocational rehabilitation agencies?
3. What information do special education personnel preparation programs provide their students regarding vocational rehabilitation services and agencies?
4. What practica and internships with vocational rehabilitation agencies do special education personnel preparation programs provide/require of their students?

Method

Sample

The sample was drawn from the National Directory of Special Education Personnel Preparation Programs (Blackhurst, Doty, Geiger, Lauritzen, Lloyd, & Smith, 1987). Programs listed in the directory which did not have a bachelor's degree program were omitted, as were programs which had neither a specific disability area for specialization nor a general special education or noncategorical area of preparation. The second criterion was included to omit programs such as adaptive physical education or audiology. After making these omissions, 440 programs remained. From this list, a random sampling of 110 programs was used for the study.

In addition to this random sampling, schools receiving federal funds for transition personnel preparation, chosen from an OSERS report, were oversampled (Baker, 1991). The report contained names of programs receiving personnel preparation monies for transitional, secondary, and correctional projects. From the list of programs, those falling under occupational therapy programs, doctoral programs, and correctional projects were eliminated. Community colleges were also eliminated. Thirty-five programs remained and were added to the random sample of 110 programs, bringing the total sample to 145 programs. Table 1 includes demographics of the sample by region and population.

Instrumentation

A survey was developed to identify competencies related to vocational rehabilitation in the targeted personnel preparation programs. The first part of the survey related to demographic information about the programs. Information concerning the relationship between special education and rehabilitation programs at the institute, the programs of study and specialization offered, and enrollment figures were requested. Information on federal funds received for transition research and personnel preparation as well as whether or not the program had a designated faculty member for transition related issues was also requested.

The second part of the survey examined specific competencies and practica in the identified programs of study. Competencies related to interagency cooperation included in the survey were gleaned from those competencies detailed by the 13 transition personnel development programs funded by OSERS in 1987 (Baker & Geiger, 1988). These competencies were then reviewed for commonalities. The competencies included in the survey reflect themes in the competencies listed by the 13 programs. Respondents were instructed to indicate if knowledge competencies, activities, and practica were required, optional, or not offered.

Respondents were also instructed to identify additional competencies and practica related to vocational rehabilitation included in their programs, as well as to identify courses offered both in the special education department and in related departments which pertained to vocational rehabilitation. The survey format allowed for separate responses for undergraduate and graduate programs.

The survey was mailed to selected programs with an introductory letter briefly explaining the purpose of and rationale for the study. Four weeks after the mailing, follow-up phone calls were made to nonresponding programs. Surveys were then completed over the phone with representatives from contacted schools.

Analysis

Demographic information from the survey was compiled to generate a general profile summary of the respondents, including size of the institution, annual number of program graduates, and specializations offered.

For each competency and practicum experience addressed by the survey, the number of programs in which each competency or practicum was (a) required, (b) optional, or (c) not offered was tallied. Relative frequencies of the responses were calculated. Additionally, the means for required, optional, and not offered competencies, activities, and practica were calculated. Analysis was done separately for undergraduate and graduate programs.

Analysis was conducted in the same manner for subsamples. The subsamples included programs receiving federal funds for transition personnel preparation, programs receiving federal funds for transition research, programs with a designated transition faculty member, programs organizationally separate from an existing rehabilitation program, and programs organizationally combined with an existing rehabilitation program.

Results

Demographics of Response Sample

Of the 145 schools in the original sample, 55 schools returned surveys via mail. Additionally, six schools were contacted by phone and either agreed to complete a survey over the phone (n=4) or indicated that their school no longer had a special education program (n=2). Total response, then, was 61 (42%) of 145 schools. Seven other programs contacted by phone indicated that they would mail the survey, but these were not received prior to analysis of the data. Of the 59 completed surveys, four were incomplete and were not used in the analysis. Table 1 compares the demographic distributions of the original sample to the response sample.

Twelve of the responding programs indicated that there was a rehabilitation program at the school, but that it was housed separately from the special education program. Seven programs indicated that their rehabilitation and special education programs were housed jointly.

Program size was categorized based on the average number of graduates per year over the past five years. Five undergraduate and 16 graduate programs indicated that there were 10 or fewer graduates per year; 6 undergraduate and 6 graduate programs indicated 11-15 graduates per year; 5 undergraduate and 4 graduate programs reported 16-20 graduates per year; 6 undergraduate and 6 graduate programs reported 21-25 graduates per year; and 17 undergraduate and 11 graduate programs reported having at least 25 graduates per year.

Four areas of specializations were identified by respondents. Twenty-six programs (47.3%) offered a specialization in secondary special education. Twelve (21.8%) offered a specialization in transition coordination. Employment training specialist and rehabilitation counselor were reported specializations by five and four programs (9.1% and 7.3%), respectively.

Table 1

Characteristics of the Total Sample and Response Sample, Reported in Percentages.

	Total Sample n = 145	Response Sample n = 61
Enrollment		
<1000	4.9	0.0
1000-4999	29.2	30.0
5000-9999	19.4	21.7
10000-19999	22.9	26.7
>19,999	23.6	21.7
Region		
Northwest	16.5	18.0
Southwest	5.5	9.8
Midwest	26.9	27.9
Northeast	23.4	22.9
Southeast	27.6	21.3

Extent of Training in Rehabilitation

Of 22 survey competencies, undergraduate programs required an average of 44.1% of the competencies. Graduate programs required an average of 41.4% of the competencies. Programs at schools with rehabilitation programs, combined or separate, consistently required an average of at least half of the competencies. Undergraduate programs receiving federal funds required fewer competencies than the overall sample, while graduate programs required more competencies. Table 2 displays the mean percentages of competencies which were (a) required or (b) optional or not offered for (a) programs organizationally separate from an existing rehabilitation program, (b) programs organizationally combined with an existing rehabilitation program, (c) programs receiving federal funds for transition personnel preparation, (d) programs receiving federal funds for transition research, and (e) programs with a designated transition faculty member.

Table 2

Percentage of 22 Survey Competencies Required and Optional or Not Offered by Program Characteristics.

	Undergraduate		Graduate	
	Required	Optional or Not Offered	Required	Optional or Not Offered
Overall	44.1	55.9	41.4	58.6
Program with separate rehabilitation program	51.4	48.6	58.2	41.8
Program combined with rehabilitation program	64.5	35.5	58.2	41.8
Receives personnel preparation funds	42.7	57.3	67.8	32.2
Receives research funds	40.9	59.1	58.2	41.8
Designated transition faculty member	49.5	50.5	55.4	44.6

Knowledge Competencies

Undergraduate. Of the ten knowledge competencies included in the survey, four were required by at least 50% of the responding programs. Those competencies most frequently required include transition services definitions and models (71.7% of the programs), legislative history (65.2% of the programs), supported employment definitions and models (63.0% of the programs)and services available to students (56.4% of the programs). Those competencies least often required include knowledge of counselor competency roles (21.7% of the programs), vocational rehabilitation status codes (28.3% of the programs) and vocational rehabilitation funding sources (30.4% of the programs).

Graduate. Five of the ten knowledge competencies were required by at least 50% of the responding graduate programs. The competencies most frequently required were transition services definitions and models, and supported employment services definitions and models (both required by 60.8% of the programs). Those competencies most infrequently required were knowledge of counselor competency roles and vocational rehabilitation status codes (required by 21.6% and 29.4% of the programs, respectively). Table 3 displays the relative frequencies of responses for the knowledge competencies.

Performance Competencies

The survey included activities and practica placements as two categories of performance competencies.

Undergraduate. Of the eight activities included on the survey, only one (completing an individualized transition plan) was required by a majority of the responding programs (52%). The competencies most infrequently required included completing a community survey of the job market and conducting a job match (required by 23.9% and 28.3% of the programs, respectively).

Of the four possible practica placements, none were required by a majority of the responding programs. The most frequently required placement was in secondary special education (required by 36.4% of the programs). Placement in vocational rehabilitation, supported employment services, and transition services were required by 4.5%, 6.8%, and 11.4% of the programs, respectively.

Table 3

Relative Frequencies of Responses to Knowledge Competencies.

	Undergraduate n = 46			Graduate n = 51		
Competency	R	O	NO	R	O	NO
Legislative history	65.2	10.9	23.9	51.0	27.4	21.6
Philosophical base	41.3	26.1	32.6	45.1	27.4	27.4
Funding sources	30.4	30.4	39.1	37.2	35.3	27.4
Eligibility Requirements	32.6	30.4	36.9	41.2	33.3	25.5
Status codes	28.3	26.1	45.6	29.4	27.4	43.1
Counselor competency areas	21.7	21.7	56.2	21.6	25.2	53.0
Transition services definitions & models	71.7	15.2	13.0	60.8	29.4	9.8
Supported employment definitions & models	63.0	23.9	13.0	60.8	29.4	9.8
Services available to students	56.4	30.4	13.0	58.8	35.3	5.9
Transdisciplinary service rationale	47.8	32.6	19.6	56.9	33.3	9.8

Note. R = required; O = optional; NO = not offered.

Graduate. Two of the eight activities, completing an individualized transition plan and conducting a vocational skills assessment, were required most frequently (required by 64.7% and 58.8%, respectively). The most infrequently required activities at the graduate level were conducting a community survey of the job market, making a job match, and making employer contacts (required by 39.2%, 41.2%, and 41.2% of the programs, respectively).

Again, none of the four practica placements were required by a majority of programs. The most frequently required placement was in secondary special education (required by 32.0%

of the programs). Placements in vocational rehabilitation, supported employment services, and transition services were required by 10.0%, 12.0%, and 20.0% of the programs, respectively.

Tables 4 and 5 display the relative frequencies of responses for the performance competencies.

Table 4

Relative Frequencies of Responses to Activity Competencies.

	Undergraduate n = 46			Graduate n = 51		
Competency	R	O	NO	R	O	NO
Individualized transition plan	52.2	28.3	19.6	64.7	25.5	9.8
Vocational skills assessment	31.4	27.4	41.2	58.8	23.5	17.6
Community survey of job market	23.9	30.4	45.7	39.2	39.2	21.6
Job analysis	30.4	28.3	41.2	43.1	41.2	15.7
Job match	28.3	24.0	47.8	41.2	35.3	23.5
Employer contacts	30.4	32.1	37.5	41.2	37.3	21.6
VR contacts	32.6	32.6	34.8	45.1	37.2	17.6
Other service personnel contacts	41.3	34.8	23.9	48.0	42.0	10.0

Note. R = required; O = optional; NO = not offered.

Subsamples

Programs at Schools with Rehabilitation Programs. Programs housed separately from rehabilitation programs and programs housed jointly with rehabilitation programs were analyzed separately. Separate programs required an average of 51.4% and 58.2% of the 22 survey competencies for undergraduate and graduate programs, respectively. Joint programs

Table 5

Relative Frequencies of Responses to Practica Competencies.

	Undergraduate n = 46			Graduate n = 50		
Competency	R	O	NO	R	O	NO
Vocational rehabilitation	4.5	31.8	63.6	10.0	44.0	46.0
Supported employment services	6.8	34.1	59.1	12.0	42.0	46.0
Secondary special education	36.4	43.2	20.4	32.0	52.0	16.0
Transition services	11.4	41.0	47.7	20.0	50.0	30.0

Note. R = required; O = optional; NO = not offered.

required an average of 64.5% and 58.2% of the competencies for undergraduate and graduate programs, respectively. Tables 6 and 7 display relative frequencies for specific competencies for these two subsamples.

Programs Receiving Federal Funds for Transition Projects. Programs receiving federal funds for preparing personnel for transition and programs receiving federal funds for transition related research were analyzed separately. Undergraduate and graduate programs at schools receiving personnel preparation funds required an average of 42.7% and 67.8% of the competencies, respectively. Programs receiving research funds required an average of 40.9% and 58.2% of the competencies for undergraduate and graduate programs, respectively. Tables 8 and 9 display relative frequencies for the specific competencies for these two subsamples.

Programs with a Designated Transition Faculty Member. Undergraduate and graduate programs with a designated transition faculty member required an average of 49.5% and 50.5% of the competencies, respectively. Table10 displays the relative frequencies for specific competencies.

Table 6

Relative Frequencies of Responses to Survey Competencies for Special Education Programs Housed Separately from Rehabilitation Programs.

	Undergraduate n = 9			Graduate n = 12		
Competency	R	O	NO	R	O	NO
Legislative history	100.0	0.0	0.0	75.0	16.7	8.3
Philosophical base	77.8	22.2	0.0	75.0	8.3	16.7
Funding sources	44.4	44.4	11.1	50.0	16.7	33.3
Eligibility requirements	55.5	44.4	0.0	66.7	25.0	8.3
Status codes	33.3	66.7	0.0	50.0	25.0	25.0
Counselor competency areas	22.2	44.4	33.3	33.3	25.0	41.7
Transition services definitions & models	88.9	11.1	0.0	83.3	8.3	8.3
Supported employment definition & models	88.9	11.1	0.0	83.3	0.0	16.7
Individualized transition plan	66.7	33.3	0.0	91.7	8.3	0.0
Vocational skills assessment	55.5	33.3	11.1	83.3	8.3	8.3
Community survey of job market	33.3	33.3	33.3	66.7	25.0	8.3
Job analysis	33.3	33.3	33.3	66.7	25.0	8.3
Job match	55.5	11.1	33.3	75.0	16.6	8.3
Employer contacts	44.4	22.2	33.3	66.7	25.0	8.3
VR contacts	44.4	22.2	33.3	41.7	41.7	16.7
Other service personnel contacts	44.4	44.4	11.1	58.3	33.3	8.3
Vocational rehabilitation	0.0	44.4	55.5	0.0	75.0	25.0
Supported employment services	11.1	44.4	44.4	16.7	58.3	25.0
Secondary special education	44.4	33.3	22.2	33.3	50.0	16.7
Transition services	22.2	55.5	22.2	25.0	66.7	8.3

Note. R = required; O = optional; NO = not offered.

Table 7

Relative Frequencies of Responses to Competencies for Special Education Programs Housed with Rehabilitation Programs.

	Undergraduate n = 4			Graduate n = 7		
Competency	R	O	NO	R	O	NO
Legislative history	100.0	0.0	0.0	71.4	28.6	0.0
Philosophical base	100.0	0.0	0.0	71.4	28.6	0.0
Funding sources	75.0	25.0	0.0	42.9	57.1	0.0
Eligibility requirements	100.0	0.0	0.0	57.1	42.9	0.0
Status codes	75.0	25.0	0.0	57.1	42.9	0.0
Counselor competency areas	75.0	25.0	0.0	57.1	42.9	0.0
Transition services definitions & models	100.0	0.0	0.0	85.7	14.3	0.0
Supported employment definition & models	100.0	0.0	0.0	85.7	14.3	0.0
Services available to students	100.0	0.0	0.0	71.4	28.6	0.0
Transdiscipl. service rationale	100.0	0.0	0.0	57.1	42.9	0.0
Individualized transition plan	75.0	25.0	0.0	71.4	28.6	0.0
Vocational skills assessment	50.0	25.0	25.0	71.4	14.3	14.3
Comm. survey of job market	25.0	50.0	25.0	57.1	28.6	14.3
Job analysis	75.0	25.0	0.0	57.1	42.0	0.0
Job match	25.0	50.0	25.0	57.1	42.9	0.0
Employer contacts	75.0	25.0	0.0	42.9	57.1	0.0
VR contacts	50.0	25.0	25.0	71.4	28.6	0.0
Other service personnel contacts	75.0	25.0	0.0	57.1	42.9	0.0
Vocational rehabilitation	25.0	50.0	25.0	42.9	42.9	14.3
Supported employment services	25.0	50.0	25.0	28.6	57.1	14.3
Secondary special education	75.0	25.0	0.0	57.1	42.9	0.0
Transition services	0.0	75.0	25.0	42.9	42.9	14.3

Note. R = required; O = optional; NO = not offered.

Table 8

Relative Frequencies of Responses for Programs which Receive Federal Funds for Personnel Preparation.

	Undergraduate n = 6			Graduate n = 13		
Competency	R	O	NO	R	O	NO
Legislative history	83.3	0.0	16.7	76.9	23.1	0.0
Philosophical base	66.7	16.7	16.7	76.9	7.7	15.4
Funding sources	33.3	50.0	16.7	38.5	46.2	15.4
Eligibility requirements	50.0	33.3	16.7	76.9	23.1	0.0
Status codes	16.7	66.7	16.7	53.8	23.1	23.1
Counselor competency areas	0.0	50.0	50.0	23.1	38.5	38.5
Transition services definitions & models	66.7	16.7	16.7	92.3	7.7	0.0
Supported employment definition & models	83.3	0.0	16.7	84.6	7.7	7.7
Services available to students	83.3	0.0	16.7	100.0	0.0	0.0
Transdiscipl. service rationale	66.7	16.7	16.7	92.3	7.7	0.0
Individualized transition plan	50.0	33.3	16.7	100.0	0.0	0.0
Vocational skills assessment	50.0	33.3	16.7	84.6	15.4	0.0
Comm. survey of job market	33.3	33.3	33.3	76.9	23.1	0.0
Job analysis	33.3	33.3	33.3	76.9	23.1	0.0
Job match	50.0	16.7	33.3	76.9	23.1	0.0
Employer contacts	33.3	33.3	33.3	76.9	23.1	0.0
VR contacts	50.0	33.3	16.7	69.2	30.8	0.0
Other service personnel contacts	50.0	33.3	16.7	61.4	38.5	0.0
Vocational rehabilitation	0.0	50.0	50.0	7.7	84.6	7.7
Supported employment services	0.0	66.7	33.3	23.1	69.2	7.7
Secondary special education	16.7	50.0	33.3	30.8	61.6	7.7
Transition services	16.7	50.0	33.3	30.8	69.2	0.0

Note. R = required; O = optional; NO = not offered.

Table 9

Relative Frequencies of Survey Responses for Programs which Receive Federal Funds for Transition Research.

	Undergraduate n = 7			Graduate n = 11		
Competency	R	O	NO	R	O	NO
Legislative history	85.7	0.0	14.3	54.5	36.4	9.1
Philosophical base	71.4	14.3	14.3	63.6	27.3	9.1
Funding sources	28.6	42.8	28.6	36.4	54.5	9.1
Eligibility requirements	42.8	42.8	14.3	63.6	36.4	0.0
Status codes	14.3	42.8	42.8	36.4	27.3	36.4
Counselor competency areas	14.3	28.6	57.1	27.3	27.3	45.4
Transition services definitions & models	71.4	14.3	14.3	72.7	27.3	0.0
Supported employment definition & models	85.7	0.0	14.3	81.8	9.1	9.1
Services available to students	85.7	0.0	14.3	81.8	9.1	9.1
Transdiscipl. service rationale	71.4	14.3	14.3	81.8	18.2	0.0
Individualized transition plan	42.8	42.8	14.3	81.8	18.2	0.0
Vocational skills assessment	42.8	42.8	14.3	72.7	18.2	9.1
Comm. survey of job market	28.6	42.8	28.6	81.8	9.1	9.1
Job analysis	28.6	42.8	28.6	72.7	27.3	0.0
Job match	28.6	42.8	28.6	72.7	18.2	9.1
Employer contacts	28.6	42.8	28.6	72.7	27.3	0.0
VR contacts	28.6	57.1	14.3	54.5	36.4	9.1
Other service personnel contacts	42.8	42.8	14.3	54.3	45.4	0.0
Vocational rehabilitation	0.0	28.6	71.4	9.1	63.6	27.3
Supported employment services	0.0	57.1	42.8	18.2	54.5	27.3
Secondary special education	14.3	42.8	42.8	36.4	54.5	9.1
Transition services	14.3	42.8	42.8	27.3	63.6	9.1

Note. R = required; O = optional; NO = not offered.

Table 10

Relative Frequencies of Survey Responses for Programs with a Designated Faculty Member.

	Undergraduate n = 15			Graduate n = 22		
Competency	R	O	NO	R	O	NO
Legislative history	73.3	0.0	26.7	63.6	22.7	13.6
Philosophical base	53.3	13.3	33.3	59.1	18.2	22.7
Funding sources	53.3	13.3	33.3	40.9	36.4	22.7
Eligibility requirements	33.3	26.7	40.0	54.5	27.3	18.2
Status codes	46.7	26.7	26.7	40.9	31.9	27.3
Counselor competency areas	46.7	6.7	46.7	31.9	27.3	40.9
Transition services definitions & models	86.7	0.0	13.3	86.4	13.6	0.0
Supported employment definition & models	86.7	0.0	13.3	77.3	13.6	9.1
Services available to students	86.7	0.0	13.3	86.4	9.1	4.5
Transdiscipl. service rationale	73.3	13.3	13.3	81.8	18.2	0.0
Individualized transition plan	80.0	6.7	13.3	81.8	18.2	0.0
Vocational skills assessment	60.0	20.0	20.0	72.7	22.7	4.5
Comm. survey of job market	46.7	20.0	33.3	59.1	36.4	4.5
Job analysis	53.3	13.3	33.3	59.1	36.4	4.5
Job match	46.7	13.3	40.0	59.1	27.3	13.6
Employer contacts	46.7	20.0	33.3	63.6	31.8	4.5
VR contacts	33.3	40.0	26.7	54.5	36.4	13.6
Other service personnel contacts	46.7	40.0	13.3	50.0	50.0	0.0
Vocational rehabilitation	0.0	26.7	73.3	9.1	50.0	40.9
Supported employment services	6.7	46.7	46.7	18.2	54.5	27.3
Secondary special education	26.7	46.7	26.7	36.4	54.5	9.1
Transition services	13.3	46.7	40.0	22.7	63.6	13.6

Note. R = required; O = optional; NO = not offered.

Discussion

The results of the study indicate that certain competencies are fairly consistently offered by programs. Other competencies, however, are frequently omitted from the programs altogether.

Knowledge Competencies

The knowledge competencies most consistently required by programs are legislative history, transition service definition and models, supported employment definition and models, services available to students, and transdisciplinary service rationale. Counselor competency areas, eligibility requirements, status codes, and funding sources are the competency areas which are least likely to be offered.

Consistently requiring the competencies of transition services definitions and models and transdisciplinary service rationale indicate a possible commitment to developing interagency cooperation. Not offering more specific competencies such as eligibility requirements, status codes, and funding sources, indicates that students leaving special education personnel preparation programs have limited detailed knowledge on how the vocational rehabilitation system operates. Special educators may have a general understanding of what services are available to their students after graduation. They may, however, lack the specific knowledge to communicate and interact effectively with vocational rehabilitation personnel.

Performance Competencies

The responses for activity competencies are less consistent than those for knowledge competencies. Individualized transition planning is consistently the most frequently required activity. Overall, the frequency of activities which are not offered is lower than for knowledge competencies. Skills dealing specifically with job placement are least likely to be offered.

Placement in secondary special education is by far the most frequently required practicum placement. This may be due to state certification laws requiring such placement for K-12 certification. Vocational rehabilitation placement is the least frequently offered placement. Less than 50% of the respondents in all categories, other than programs housed jointly with special education graduates, offer placement in vocational rehabilitation.

Overall, fewer performance competencies were required than knowledge competencies. This suggests that, though students may receive information on the vocational rehabilitation system, they have limited opportunities to apply the knowledge through activities and practica.

Comparison of Graduate and Undergraduate Programs

Overall, graduate programs required slightly fewer competencies than did undergraduate programs. Within most subsamples, however, graduate programs required more competencies. Also, graduate programs tended to have fewer competencies which were not offered at all to students.

Programs at Schools with Rehabilitation Education Programs

The presence of a rehabilitation education program appears to significantly increase the number of competencies which are required by special education programs. For both subsamples, separate and joint programs, mean percentages of required competencies were above 50%. These programs also tend to have fewer competencies which are not offered at all to the students.

Programs which Receive Federal Funds for Transition

Undergraduate programs at schools which receive federal funds for either transition personnel preparation or transition research require slightly fewer competencies than does the overall sample. Graduate programs in these subsamples, however, require a significantly higher number of competencies than does the sample overall. This may indicate that federal funds are being used to focus on graduate level training.

Programs with a Designated Transition Faculty Member

Both undergraduate and graduate programs at schools with a designated transition faculty member require more of the competencies than does the overall sample. These programs also have fewer competencies which are not offered at all to students. The presence of a transition faculty member, then, appears to affect positively the level of training in vocational rehabilitation competencies.

Limitations of Study

These results are limited by several factors. The response sample size and characteristics may limit the power of the results. Additionally, the survey was not piloted to test for and remedy survey ambiguities.

The response rate for the survey was 42%. Examination of the regional and enrollment distributions indicates that some populations were underrepresented in the response sample (Tables 3 and 4). Schools with enrollment of fewer than 1000 students were not represented in the response sample. Schools in the southeast were underrepresented in the response sample while schools in the southwest were slightly overrepresented in the response sample. Thus, the findings of this study may not generalize to these three subpopulations. Also, due to the small sample size much of the data on relative frequencies may be misleading.

The survey had certain ambiguities which may limit the findings of the study. Two respondents indicated that they were unclear as to whether they were supposed to respond to the survey referencing their special education program or their rehabilitation program. Both indicated that they responded with special education figures, but other respondents may have been unclear and completed the survey with rehabilitation figures.

The survey did not present objective definitions for all competencies. Nor did it present criteria for assessing whether or not the competencies were included in the program. Thus, similar responses may not always reflect similar programs. Also, the survey did not provide a structure for determining how frequently optional competencies were elected by students. There is no indication of whether optional responses increase or decrease the total number of competencies a student addresses in his/her program.

Summary

Despite the limitations of the study, the results do suggest interesting preliminary data. First, federal funds for transition projects appear to be directed toward graduate programs. Undergraduates in the responding programs are actually required to demonstrate fewer competencies at schools which receive federal funds than students in the overall sample. Schools receiving federal funds should consider expanding these program options to the undergraduate level so that more special educators have the ability to work with the vocational rehabilitation system.

Programs with designated transition faculty members require more competencies than does the overall sample. The roles and functions of these individuals should be assessed to determine how they impact their programs. Also, special education programs should be encouraged to include such an individual as part of their faculty.

Finally, the overall trend of those competencies required and those not required needs to be considered. Knowledge competencies are more frequently required and more frequently offered than are performance competencies. Students, then, do not have the opportunity to put the information they get into practice. Yet, suggested models of personnel preparation include both knowledge and performance activities. Schools need to assess how adequately their knowledge competencies are reflected in performance competencies. Also, overall, less than half of the survey competencies were required by the responding programs. Schools need to include more of these or similar competencies in their preservice personnel preparation programs if they are to prepare special educators who can effectively and cooperatively work with vocational rehabilitation personnel and systems.

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CHAPTER III

ANALYSIS OF THE TYPES OF NATURAL SUPPORTS UTILIZED DURING JOB PLACEMENT AND DEVELOPMENT[1]

John S. Trach and Camille D. Mayhall

Abstract: *This study analyzes placements of individuals with severe disabilities in integrated work settings and describes the support provided through accommodations designed to empower consumers, employers, and coworkers with responsibility typically assigned to job coaches. A comprehensive, field-generated definition was utilized to categorize natural supports. Results show that the supported employment professionals implemented primarily natural supports, which excluded the assistance of a job coach and represented a shift to supports associated with the workplace. These professionals identified planning meetings as the "key" to identifying the needs of individuals with disabilities as well as natural supports in the workplace. Employers reported that they adjusted or modified the supports implemented by the supported employment professionals and initiated the design of additional, new supports.*

In order to achieve successful community employment for workers with severe disabilities, supports independent of agency personnel (i.e., supports found naturally or typically in the workplace) must be utilized (Callahan, 1992; Fabian & Luecking, 1991; Nisbet & Hagner,

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1988). Many individuals with severe disabilities may need training and follow-along services for extended periods of time, possibly for the duration of employment. Consequently, in order to transfer all or part of the responsibility for support from professional service providers, it is important to implement natural supports to provide consistent ongoing training and follow-along services.

The role of the supported employment specialist is to match an individual to a meaningful job in the community by assessing his/her characteristics and needs in relation to job requisites and determining the individual's strengths, skills, abilities, support needs, and preferences (Trach, 1990). When the support needs of an individual with significant disabilities are addressed as part of the work site, reliance on a job coach should be diminished or eliminated. Support models, such as natural supports, "developed from a close examination of natural work settings are likely to avoid many of the difficulties that constrain with the job coach model" (Nisbet & Hagner, 1988, p. 261). Supported employment efforts should begin with an examination of the social interactions and supports that are commonplace in natural work environments, and then should build upon and augment these natural processes and interactions within the work site (Hanley-Maxwell & Millington, 1992; Rogan, Hagner, & Murphy, 1993).

Early employment models, which later served as the conceptual framework for supported employment, presented a technology for employing persons in community jobs focused on strategies (Trach, 1990). From the beginning of services identified as supported employment, the field has developed the notion of job coach in conjunction with or parallel to the provision of service. The name has undergone some changes (e.g., employment training specialist) while becoming nearly synonymous with the services provided (i.e., supported employment). This study investigates those services from a categorical perspective of those types of supports that most often substitute the action for the person. In other words, job coaches need not deliver all services; in fact, in most cases the job coach is not the appropriate source of support. The basic premise of this research is that if a job coach provides all the services, then 100% of the support must be faded or transferred for an employee to be independent. This investigation describes a group of placements that utilized a categorical approach to the provision of support that focused on the delivery of service by any means other than a traditional job coach approach as described by Wehman, Sale, & Parent (1992).

SPANS

"A Competency-Based Training Program to Promote, Implement, and Evaluate a Systematic Plan for Achieving Natural Supports (SPANS)" targets resources and individuals to assist with planning employment, determining support needs, and implementing natural supports for individuals with disabilities (Trach & Shelden, 1993). The training program promotes a systematic process for determining and implementing natural supports for these individuals, targeting a higher level of integration, acceptance, and satisfaction for them. The SPANS model contains an operational definition of natural supports with six components: consumer-driven planning, ecological assessment of individual needs, environmental assessment of natural supports, identification of natural supports in multiple environments, matching natural supports to individual needs, and development of individual natural supports plans. The SPANS Training Project enhances the capacity of the participants to develop, implement, and evaluate effective, systematic models of natural supports.

Natural Supports Definition

The operational definition of natural supports developed and used by participants states that natural supports are "human or technical resources that are available or can be developed in a setting to facilitate integration, acceptance, and satisfaction, and to promote the goals and interests of all individuals in the setting." Natural supports are further defined as organizational supports, physical supports, social supports, training supports, service supports, and community supports (Trach & Shelden, 1993) (Table 1).

Table 1

SPANS Model of Natural Supports

Support	Definition
Organizational	Preparing and organizing activities in the setting, including but not limited to scheduling, order of tasks, and location of materials (e.g., flextime, prioritized schedule, centralizing supplies).
Physical	Design and function of physical objects and equipment in a setting, including technical and nontechnical supports (e.g., robotics, ramps).
Social	Interacting with nondisabled individuals in an environment (e.g., carpools, lunch and break partners).
Training	Extending personal competence and skill through direct training and instruction (e.g., self-management and mentor programs, coaching).
Service	Accessing professional and nonprofessional disability-related services (e.g., PASS program, volunteers through ILC).
Community	Accessing community agencies and services that are available to all individuals (e.g., public transportation, YMCA/YWCA programs).

This study investigates the frequency with which various types of supports were implemented, the duration of use and stability of those supports, and the variety of employment settings accessed. The following questions were addressed:

1. Which type or category of support is most frequently implemented by program participants?

2. Do program participants recognize a relationship between the type of employment and the types of supports most frequently utilized?
3. Have supports been adjusted or modified since the consumer began employment?
4. Have employers initiated modifications of existing supports?
5. Have employers initiated design or implementation of additional supports?

Method

Participants

The study included 19 participants in an intensive training program that focused on developing natural supports; they included state rehabilitation counselors, adult agency program coordinators for employment and training services, and school personnel involved in transitional, competitive, and supported employment. Participants demonstrated their training in three- to six-month externships in which they were to place in supported employment a person with a severe disability from sheltered employment or a school program. There were five two-person teams, one three-person team, and six individuals. Teams implemented a total of 14 projects. The process was documented, and the teams reported regularly on the progress of their demonstration. Consultation consisted of phone contacts and site visits.

Procedure

The study was conducted in two phases within the context of the supports delineated in Table 1. First, document reviews of participant final reports were utilized to determine the type and frequency of natural supports. Second, a phone survey was conducted (a) to determine agreement of SPANS program participants and researchers concerning the types and frequency of supports utilized, (b) to assess the duration and stability of supports, and (c) to describe the type of employment. In addition, each support utilized by program participants was evaluated to determine if it was adjusted or initiated by the employer. Semi-structured phone interviews were conducted with each program participant (Lincoln & Guba, 1986); these interviews focused on (a) deciding which supports to implement, (b) the relationship between type of employment and types of supports, (c) the modifications of existing supports initiated by employers, and (d) employer-initiated design or implementation of additional, new supports. Frequency counts of the various supports and relative frequency of natural supports implemented were obtained from the data collected from the final reports, while phone interviews with the program participants provided trend information and confirmed the final report data. Final reports provided descriptions of the employment process and related statistics.

Results

Document Review

The review of the 15 final reports identified a total of 88 natural supports implemented by the 19 program participants in their externships. Reliability was calculated as 90% agreement. Of the 88 natural supports identified, 21.6% (n=19) of the natural supports were considered training supports, 20.5% (n=18) were social, 19.3% (n=17) were physical, 19.3% (n=17) were service supports, 13.6% (n=12) were organizational, and 5.7% (n=5) were community supports. These results indicate that social and physical supports were frequently utilized, whereas only one of every 11 supports reported (9.1%) was provided in the traditional fashion by a job coach.

Further analysis of training and social supports provided additional information (see Table 2). Of the total of 19 training supports, 57.9% (n=11) were implemented by someone other than a job coach and 42.1% (n=8) were implemented by job coaches.

Table 2

Relative Frequency of Training and Social Supports by Category of Provider

Support Provider	Training Supports(N=19)		Social Supports (N=18)	
	n	%	n	%
Job Coach	8	42.1	0	-
Consumer	6	31.6	0	-
Supervisor/Coworker	4	21.0	11	61.2
Parent/Family Member	1	5.3	5	27.7
Community Individual	0	-	2	11.1

Furthermore, two of the eight job-coach supports initially required full-time job coaches, which were then modified to follow-along status. The second most frequent support implemented was social support. Of the 18 social supports utilized, supervisors or coworkers were utilized in 61.2% (n=11), family members assisted with support in 27.7% (n=5), and community individuals were utilized in 11.1% (n=2). Job coaches were not involved in any of the social, physical, organizational, and community supports. These supports constituted 59.1% of the total of identified natural supports. Altogether, 52 natural supports were implemented without the assistance of a job coach.

Phone Survey

Seventeen of the 19 program participants participated in phone interviews. Participant responses are described below.

Question 1: Tell me how you decided which support to implement. Fourteen of the participants responded that they used the planning meeting with key stakeholders to determine what support needs existed and what support resources should be implemented for the individual.

This strategy and format were introduced at the SPANS Training Program. This process provides opportunities for the consumer, parents, previous job coaches, teacher, vocational counselor, employer, personal care attendant, and other persons to discuss issues and concerns related to the needs and supports of the consumer, and potential solutions for consumer needs. Six participants reported that the primary means for determining the consumers' supports was to ask the consumers what they needed in order to be successful on the job.

Five of the participants responded that it was crucial to include the employer in the planning process so as to identify the job and duties that were going to be assigned to the consumer. Potentially, the employer may assist by providing different ways to do the tasks and to suggest adaptations that may make the job easier.

Question 2: What is the relationship between type of employment and types of support? Four participants reported a direct relationship between type of employment and type of support. One participant who had placed a consumer in food service believed that social supports were most frequently utilized. He attributed this observation to the team approach utilized at most restaurants. Another participant observed a relationship between a data entry and mail delivery job and type of supports. In this instance, a consumer with a physical disability was offered this job with specific supports implemented to assist directly in performing job duties. In another instance, a consumer who traveled within the community was provided social supports in various locations by individuals within those environments. In contrast, a consumer who worked independently of coworkers was provided physical supports.

Seven program participants reported a relationship between the type of employment and the needs of the consumer. These participants stated that they matched their consumer's needs with specific supports that were available and acceptable within that type of employment environment. They also reported that some employment sites were more accommodating than others.

The twelve consumers in this study were employed through training program externships. Five placements were in maintenance, four placements were in restaurants, two clerical placements were in a library and in data entry and mail delivery, and one factory placement involved assembly-line work. Two of the consumers had not yet found community employment. Frequency and relative frequency of natural supports utilized by types of employment are shown in Table 3.

Table 3

Frequency and Relative Frequency of Natural Supports Utilized by Types of Employment

Support	Maintenance (5)*		Food Service (4)		Clerical (2)		Factory (1)	
	n	%	n	5	n	5	n	5
Training	7	15	6	30	1	8	5	50
Social	8	17	6	30	4	33	0	0
Physical	10	22	1	5	5	42	1	10
Service	12	26	1	5	1	8	3	30
Organizational	7	15	5	25	0	0	0	0
Community	2	4	1	5	1	8	1	10
TOTAL	46	100	20	100	12	100	10	100

*The number in parentheses indicates the number of jobs in each job category.

The data indicate that the five consumers who worked in maintenance utilized primarily service and physical supports. These consumers received many service supports outside of work, such as a case manager, adult family home provider, job center, an educational video, a PASS (Plan for Achieving Self Support), and an afternoon day program. The physical supports utilized by the consumers included checklists, a schedule of activities, a tape recorder, a map, a cart, pliers, rubber gloves, and a water bottle.

The supports used most frequently in food service jobs were training and social. The training supports included coworker training and job coach training as well as coworkers' prompting and encouragement of the consumers by coworkers. Training supports also targeted consumers learning to control emotions, to display appropriate behavior and hygiene, and to maintain uniforms. There was a wide range of social supports implemented as part of the team effort emphasized in these settings. Coworker support occurred in the form of encouragement, instruction, and feedback.

Physical supports were highest in the two clerical positions. These consumers had significant disabilities, and physical supports were needed to access the computer and deliver the mail. Other physical accommodations included an electric wheelchair, a grasping tool, and a communication board. Social supports consisted of coworker assistance and praise, and family assistance with transportation. In contrast, the consumer in the factory position utilized the most training supports, such as self-monitoring strategies, listening to his supervisor, and changing his work performance when asked.

Question 3: How have the supports that you implemented been adjusted or modified since your consumer began employment? Four participants stated that their formal supports had decreased in terms of job-coaching service hours. Furthermore, many of the services the job coach initially provided were transferred to the supervisors or coworkers, and more responsibility was given to the consumer. Participants suggested that this decrease in "formal supports" appeared to be associated with the planning process described previously. Therefore, as a result of planning done both before the consumer actually got the job and while on the job, many of the formal supports decreased. Consequently, individuals within the work site assisted with determining the support needs and resources, which ultimately resulted in the fading of the job coach and the transfer of providing support to the site. In fact, a new role of employment consultant was defined by some participants to assist with the development of natural supports within the workplace.

Six program participants reported providing follow-up services through occasional visits to the workplace. The participants gave suggestions when questions or problems were posed while decreasing their services. The consumer then assumed the responsibility of utilizing the supports that were implemented.

There was a reported difference between how the job coaches operated before and after the SPANS Training Program. Consequently, job coaches were now concentrating on determining the consumer's needs and identifying which supports within the environment can be implemented to assist the consumer. They also worked to determine social supports within the workplace. The new role of the employment consultant was to help the employer to assist the consumer with successfully performing his/her job duties and functioning independently.

Question 4: How have the employers where your consumer is placed initiated modifications of the existing supports that you implemented? Seven of the program participants stated that the employers/supervisors and coworkers took the initiative in working more directly with the consumers. They stated that social supports were used because of the job coach responsibilities were shifted to other individuals within the work environment. Three instances were reported in which coworkers were providing training when the consumer was learning new tasks. They believed that as coworkers felt more comfortable with the consumers over time, they became part of the team effort at the workplace. As the consumer began to perform the job independently, training was further decreased by the supervisors and coworkers, and minimal prompting was necessary. Seven participants reported that the supervisors and employers were responsible for prompting, modeling, reminding, and feedback on performance.

Question 5: How have the employers initiated design or implementation of additional new supports? Seven participants had several instances where the employer initiated many new supports for the consumer. The employers who did not initiate new design or implementation of supports had consumers who performed the same job. Thus, once the job had been developed, there was no need for additional accommodations.

Two employers initiated a number of additional new supports with consumers who had quite significant physical disabilities. Participants suggested that the need for physical supports may be more recognizable and employers may have the greater capacity to provide them. For example, if a ramp was installed, a consumer could then easily enter and exit the building independently. For a consumer who entered data, a number of adaptations to the computer were necessary to provide access. Another employer initiated several new supports in the organizational category. This employer purchased new break-room furniture to facilitate participation during break time and removed casters from the chairs to accommodate a consumer with physical disabilities and visual impairment.

Five participants reported a number of additional new supports implemented by the employers, such as enabling a consumer to develop her own work schedule; developing a routine for the consumers by adding more job duties in different areas of the workplace; and assigning a consumer to several coworkers to give the consumer a variety of opportunities to work with different coworkers. Finally, one employer continually provided specific instructions, gave the consumer time to complete the specific task, and returned to give immediate feedback to the consumer about his task performance.

Discussion

The results of data analysis and phone interviews with the SPANS program participants described the extent to which natural supports were utilized. Training supports were used most frequently, followed by social supports. None of the 52 social, physical, organization, and community supports, was provided by job coaches. The participants utilized natural supports, re-assigned responsibility for the provision of services for consumers with disabilities, and promoted the fading of the job coach; that is, the provision of services shifted from the job coach to other means of support.

In the phone survey, fourteen of the program participants stated that the planning meeting was the most helpful factor in determining consumers' needs and the required supports. Planning meetings convened key stakeholders who assisted in determining the consumer's needs on and off the job, identifying supports that might be utilized to assist the consumer, and matching supports to needs. The goal was to implement means of assisting the consumer other than the traditional job coach supports, which in turn enabled the consumer to be more independent of the job coach and better integrated into the employment situation.

Participants reported a direct relationship between the type of employment and types of supports most frequently utilized, as well as between the specific job and the needs of their consumer. Some program participants indicated that they saw a relationship between the type of employment, the specific job, and the consumer. The participants indicated that there existed a "best match" for their consumers, and the planning process facilitated the negotiation for a supportive environment and the selection of a type of employment and environment that were more accommodating than others, based on coworkers or the nature of the business. Furthermore, a number of supports were adjusted or modified after the consumer began employment and job-coaching services had decreased or lessened. Many of the supports that the job coach had initially provided had been transferred to individuals within the workplace, such as employers, supervisors, and coworkers. Job coaching decreased and was replaced by additional consultation with the employer rather than one-on-one consumer training. Consequently, employers adjusted or modified supports, and social supports became more prevalent, possibly because coworkers were training and interacting more with the supported employees. The coworkers provided prompting, modeling, feedback, and reminding, and thus became more comfortable with the consumers. In turn, there were organizational changes, which resulted in employers assigning more job duties to consumers. This job enhancement made the consumer a more integral part of the employment setting through additional responsibilities and seemed to indicate an increase in the employer's understanding of and trust in the consumer.

Some employers had initiated the design of additional supports. The adaptations to the actual workplace and modifications to the job and/or materials used for the job seem to be easily recognizable to employers. Employers who assist consumers with physical disabilities provide supports that are physical in nature and can be implemented quite quickly, so that the results are immediately apparent. Therefore, it may be that employers experience success and satisfaction with the supports they have implemented, and thus are more apt to try other supports for the consumers. Comparatively, in terms of consumers with cognitive disabilities, the supports implemented may take a longer period of time to see significant results due to learning patterns.

However, when employers have positive experiences with consumers with physical disabilities, they may be more apt to try to work with a different population of individuals with disabilities.

Employer, coworker, and community roles in supporting persons with disabilities have been and will continue to be expanded (Baumgart & Askvig, 1992; Curl & Chisholm, 1993; Fleming & Sulzer-Azaroff, 1992; Rhodes, Sandow, Mank, Buckley, & Albin, 1991; Ridgely, 1992). In addition, job coach roles will expand (Rogan, Hagner, & Murphy, 1993; Rusch, 1990; Wehman, Sale, & Parent, 1992). Additional studies concentrating on the type and extent of assistance that employers need to successfully employ consumers with both physical and cognitive disabilities would provide useful information. Generally, new areas of research and training focused on partnerships with business should shift attention from the supported employee to a supportive work environment (Bissonnette, 1994; Fabian, Luecking, & Tilson, 1994).

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CHAPTER IV

PERCEPTIONS OF THE SUPPORTED EMPLOYMENT JOB SEARCH PROCESS: WHO MAKES THE CHOICES?

Amy E. Dwyre and John S. Trach

Abstract: *This study reports the results of research based on case studies of supported employees, their service providers, and their parents and/or guardians and shows how each group perceived the roles and expectations of all participants in the job search process. Analyses and comparisons of each group's responses show a tendency for service providers to overestimate choice levels of supported employees, while parents and guardians tended to underestimate it. In addition, a lack of communication between supported employees and service providers regarding preferences is evident. Recommendations are made for training in supported employment -- to service providers on how to afford choice and to supported employees on how to express preferences.*

When most people think back on their lives and how they got to where they are today, they can reflect on the choices they made -- whether favorable or unfavorable -- each step of the way. They can look back on how one choice led to the next decision and can trace how each opportunity took them one step further toward a goal. However, when most people with disabilities -- particularly significant disabilities -- do the same reflecting, the scenario is a very different one. Most have landed where they are today because of missed opportunities and other people's decision-making. Our history of services unfortunately reveals a system that has continually denied people with disabilities the right to make decisions that impact their lives, including the very important choices that lead to a meaningful career. In our society, career is what tends to claim our status. "Employment represents the most widely accepted barometer of adulthood and success in American culture" (White & Bond, 1992, p. 17).

What constitutes choice-making, and are there levels of choice-making that restrict and/or encourage meaningful, life-impacting choices? There are many relevant terms and concepts related to choice-making that must be understood before discussing the barriers and the benefits of choice-making for persons with disabilities.

Definitions

The literature on choice-making defines a variety of concepts. Shevin and Klein (1984) offer a basic definition of choosing as "the act of an individual's selection of a preferred alternative from among several familiar options" (p. 160). In 1979, Brigham recognized the concept of "uncoerced selections," or selecting one option over another with no resulting consequences. In order to study the process of choice-making, it is important to understand the various parts of decision-making. Guess, Benson, and Siegel-Causey (1985) have broken down the process into three active categories: (a) preferences (propensity for something, communication of the desire, and a recognition that options exist); (b) choice as a decision-making process (the expression of a preference followed by an active selection of that preference);and (c) choice as an expression of dignity and autonomy (power, control, and self-determination.)

Although there is increased recognition of the importance of choice-making for people with disabilities, research has shown that opportunities continue to be restricted by caregivers and service providers (Jenkinson, 1993). Specifically, Jenkinson found that "the way in which problems are identified, questions are phrased, perspectives posed and integrated, and confidence shown by the solicitor of values in the person's ability to draw inferences will all influence a person's decision" (pp. 366-367).

In the area of career planning and job searching, lack of choice-making opportunities can affect employment success for people with disabilities. The Office of Special Education and Rehabilitation Services (OSERS) introduced supported employment as a means of providing an alternative to underemployment for people with disabilities and improving their general employment outlook.

Barriers to Choice-Making

The employment statistics for people with disabilities suggest a significant problem. Studies conducted in Colorado (Mithaug & Horiuchi, 1983), Vermont (Hasazi, Gordon, and Roe, 1985), and Virginia (Wehman, Kregel, and Seyfarth, 1985) showed dismal employment outcomes for students graduating from special education programs, including large percentages of unemployment, underemployment, and earnings of less than $4 an hour or less than $500 a month. These results led Mithaug and Martin (1989) to project data for future students exiting special education programs, and they concluded that only 40% will find full-time work, only 33% will earn $5 or more an hour, and that these graduates will not be appropriately prepared for an effective job search and job maintenance.

According to Dwyre and Trach (1996), there are three broad categories of barriers to choice-making for people with disabilities that may help explain these poor employment outcomes: (a) a perception of incompetence by service providers and caregivers, (b) a lack of opportunities for choice-making, and (c) service systems -- for both school-aged and adult consumers -- that perpetuate the problems.

Perceptions of Incompetence

As described by Wehmeyer (1992), social learning theory asserts that personal competency is an important motivator in human behavior. As a result, a person will perform only as well as they or others expect them to perform. Wehmeyer also points out that people need to feel like causal agents in order to feel competent and effective. According to Dwyre and Trach (1996), this concept of personal competency tends to clash with the models of service provision still often used today, including the medical and deviancy models which focus on individual deficits and attempt to "fix" people with disabilities so they will fit better into society.

Lack of Choice-Making Opportunities

A perception of limited competence which is often placed upon people with disabilities can directly lead to reduced opportunities for choice-making. And often the choices that are offered are far from meaningful. Parent, Sherron, Stallard, & Booth (1993) discuss this lack of meaningful choices in employment decisions such that a person with a disability is not offered a variety of alternatives from which to express a preference. Rather, they are offered one choice and given the opportunity to merely say "yes" or "no." Also, if alternatives are presented, they are often preselected by service providers and presented without complete information. Where some may see this as “guidance,” it can also be recognized as limiting the choice-making opportunity. This fine line can only be approached by providing training to people with disabilities on how to make meaningful choices and offering additional time and assistance to do so. Without this training, we are further limiting choice-making opportunities.

Service Systems

One of the main reasons people with disabilities experience powerlessness and a lack of self-direction is related less to their own limitations than to the attitudes and practices of service providers, funding agencies, and social institutions (West & Parent, 1992). Studies have shown that in order for decision-making to occur, systematic training of choice-making skills for students with severe disabilities is required, rather than assuming these skills will develop informally (Shevin & Klein, 1984). Unfortunately, studies have also shown that this type of systematic training does not occur at the school level (Mithaug, Martin, & Agran, 1987), and often there is very little response to students' expressions of preferences in the classroom (Houghton, Bronicki, & Guess, 1987).

Beyond the school setting, research has shown that control of daily activities and environments remains in the hands of adult agency service providers (Bannerman, Sheldon, Sherman, & Harchik, 1990) and that very few incentives exist within the adult service system for providers to offer choice (Schaller & Szymanski, 1992).

A recognition of these barriers does no good if we do not call for a change. In order to do so, Dwyre and Trach (1996) point out that we must make two assumptions: (a) people with severe disabilities are capable of making decisions and choices, and (b) increased choice-making is desirable for both the individuals and society in general. Studies that link choice-making to increased expression of preferences, increased participation in activities, improved performance levels, and decreased problem behavior justify these assumptions (Berk, 1976; Brigham, 1979; Dattilo & Rusch, 1985; Dunlap, DePerczel, Clarke, Wilson, Wright, White, & Gomez, 1994; Fixsen, Phillips, & Wolf, 1973; Foster-Johnson, Ferro, & Dunlap, 1994; Foxx, Faw, Taylor, Davis, & Fulia, 1993; Koegel, Dyer, & Bell, 1987; Mendonca & Brehm, 1983; Parsons, Reid, Reynolds, & Bumgarner, 1990).

Purpose

The purpose of this study was to identify how each significant member of a supported employment job search team (the supported employee, the service provider, and the parent/guardian) perceived the roles and expectations of all participants in the job search process, and how these perceptions may have related to the actual choices made. The purpose was also to identify how each member of the team described the same process in terms of control of decision-making, preferences, and choice-making opportunities; to what extent overall agreement existed among the team members when their responses to the same interview questions were compared; and to what extent supported employee job preferences matched their current jobs.

Methods

Participants

Interviews were conducted with 33 people: 3 people each for 11 case studies. Each case study consisted of a supported employee, a supported employment agency service provider, and the parent or guardian of the supported employee. Agencies were approached to request access to supported employees who fit the following criteria: (a) at least 18 years old; (b) lived and worked in Illinois; (c) acquired a supported employment job through the assistance of supported employment services within the last year and worked on the job for at least a week (the individual was not required to be on that job at the time of the interview); (d) diagnosed with moderate mental retardation, as defined by the American Association on Mental Retardation; and (e) comfortable and willing to interview alone.

The remaining participants for each case study were then determined according to the supported employee. The supported employment service providers fit the following criteria: (a) the person was most responsible or most directly involved in the chosen supported employee's job search process, and (b) the person worked with the supported employee during the entire job search process. The parents or guardians were either the parent, legal guardian or the main residential provider of the supported employee.

Procedures

The study involved conducting separate interviews with each member of each case study at the location of each interviewee's choice. All questions related to the supported employee's job search process in order to determine individual perceptions of the same process. Each interviewee was asked the same questions, with the exception of extra reworded questions asked of the supported employee as part of an acquiescence scale to help determine whether or not supported employees were simply acquiescing in their responses. The questions were asked in the same order, audiotaped, and then transcribed to a written format for scoring purposes.

Interviews were conducted by the principle researcher, who also trained a research assistant to conduct interviews. Interview training consisted of listening to audiotapes of interviews conducted by the principle researcher, reviewing written transcriptions of interviews, and role-playing each question.

Interview Protocol

Items used were developed in part by reviewing questions used by Test, Hinson, Solow and Keul (1993) in their job satisfaction study of supported employees; the Expanded Interview Form used by the National Association of Rehabilitation Facilities; and the Consumer Job

Satisfaction Scale (Mason, 1990.) For formatting, validity checks, and scaling, the Life Satisfaction Scale (Heal, Harner, Novak Amado, & Chadsey-Rusch, 1992) was reviewed.

The interview protocol was intended to determine the level of agreement among all three members of each case study within three subtopics : (a) control of decision-making (who specifically made decisions), (b) preference (what the supported employee likes or prefers), and (c) opportunities for choice (how often and when a supported employee was asked her or his opinion or was given the chance to try a preference). A fourth section was designed simply to gain general information.

Validity

According to research, several biases can threaten the validity of responses by individuals with mental retardation during interviews (Heal & Sigelman, 1994; Heal & Harner, 1993; Biklen & Moseley, 1988; Sigelman, Budd, Spanhel, & Schoenrock , 1981). One problem area is acquiescence, or the tendency to answer "yes" regardless of the question asked (Heal & Sigelman, 1994; Sigelman et al., 1981). Another problem arises with "either-or" questions, where respondents tend to show a small bias in favor of the last option named, regardless of its content (Sigelman et al., 1981). In response to these reported biases, an acquiescence scale similar to that used in the Lifestyle Satisfaction Scale (Heal & Harner, 1993) was developed.

Data Analysis

Data was collected during the interview process by determining the level of agreement among the members of each case study. Comparisons were separated into three groups: the supported employee and the service provider; the supported employee and the parent/guardian; and the service provider and theparent/guardian. Scores were calculated within each group, by question, as described:

+2 points:	The two answers are exactly the same. *(e. g., Q: Do you like the job you have right now?* *A1: Oh yes, I like my job very much.* *Q: Does [supported employee] like her job?* *A2: Yes, definitely. She loves her job.)*
+1 point:	The two answers are very similar; not exact, but imply similar information; more factors in common than not. *(e. g., Q: Did you want your mom at the meetings?* *A1: Ummm, yeah, for the most part.* *Q: Did your son want you at the meetings?* *A2: Yes, definitely.)*
0 points:	The two answers are as equally similar as they are dissimilar; in a list of four responses, 2 are the same, 2 are different; or one respondent does not know.
-1 point:	The two answers are very dissimilar; not totally opposite responses, but there are only hints of similarity; more factors not in common. *(e. g., Q: Did your son want you at the meetings?* *A1: Yes, always.* *Q: Did he want his mom at the meetings?* *A2: Well sometimes, but most often no.)*
-2 points:	The two answers are totally opposite; nothing similar about the two responses. *(e. g., Q: Did you have as much control as you wanted?* *A1: Oh, yes!* *Q: Did she have as much control as she wanted?* *A2: No. Definitely not.)*

Scores were calculated according to each of the subtopics (control of decision-making, preference, opportunities, and general) for each case study within two weeks of the interview. Then an overall report was conducted to determine which pairs of team members have higher and lower agreement levels and which topic areas (control of decision-making, preference, opportunities or general) represent problematic agreement levels. Chi square analyses were then calculated for individual questions to identify significant trends within topic areas.

In order to get an idea of whether supported employee job preferences matched the actual jobs they had, supported employee responses to specific questions (*What is your dream job? Would you rather be working somewhere else?* and *Do you want to try any other kinds of jobs? What would you like to try?*) were compared to the responses to other specific questions (*Do you have a job right now and what is it?* and *What do you do at your job?*).

Results

After all 33 interviews were conducted, the questions were divided into the three topic categories: control of decision-making, preferences of supported employees, and opportunities for choice-making. To test content validity, the interviewer gave the interview instrument -- not divided into subtopics -- and an introduction to the research to an assistant not related to the research to categorize. The interviewer and the assistant placed 76 of the 79 questions in the same categories, resulting in a percent agreement score of .96. Relative frequencies of responses for individual questions (i.e., how many supported employees, service providers, and parents/guardians responded in one way for each question) were calculated.

These percentages were placed in chi square tables for each question and an analysis was conducted on each question to determine whether these data were significant in establishing levels of agreement. If a chi square test for a specific question was found to be significant, then an hypothesis of independence could be rejected and the responses to the questions -- in this interview protocol, estimation of decision-making power -- could be attributed to the group's identity, defined as their relationship with the supported employee. In this study, the author is attempting to learn to what extent each case study member's relationship to the supported employee affects the decision-making process. The following explanations and tables show that the responses to many of the questions were found to be significant at acceptable levels, rejecting the hypothesis of independence in responses and strongly suggesting that group identity and relationship to the supported employee influences how decisions are made regarding the supported employee.

Chi squares conducted on each of the following questions were found to be significant, suggesting that group identity influences responses. In these cases, when the groups were presented with the following questions, the extent to which they disagreed was found to be significant.

Category 1: Control of Decision-Making

In the category of control in decision-making, the comparisons of responses to several questions revealed significant discrepancies. For example, when asked whether supported employees, in general, had control over choosing their current job (question 10a: Did the supported employees choose the jobs they currently have?, question # 32a: Did the supported employees have control over choosing their current jobs?, and question #32b: Did the supported employees have as much control as they wanted?) everyone agreed that the supported employees did have control. However, when each participant was asked about specific parts of the job search process (question #33a: Who made most of the decisions about choosing the supported employees' current jobs? and question # 33b: Who decided the hours and days that the supported employees would work?) everyone agreed the service providers were in control. (See Figures 1A - 1E).

Responses to Questions regarding Choicemaking

Figure 1A : Did the supported employees choose the jobs they currently have?[1]

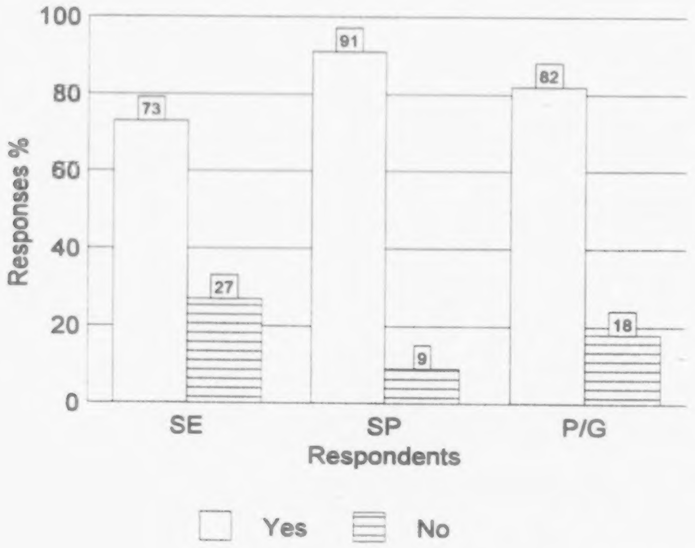
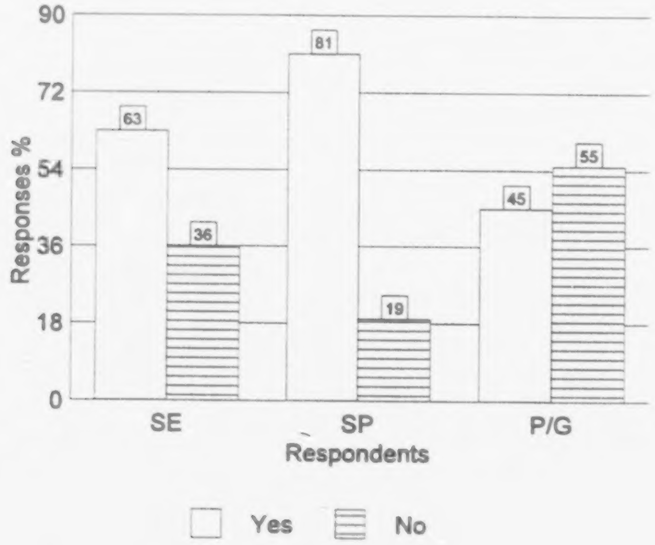


Figure 1B: Did the supported employees have control over choosing their current jobs?



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[1] SE = Supported Employee, SP = Support Personnel, P/G = Parent/Guardian

Figure 1C: Did the supported employees have as much control as they wanted?

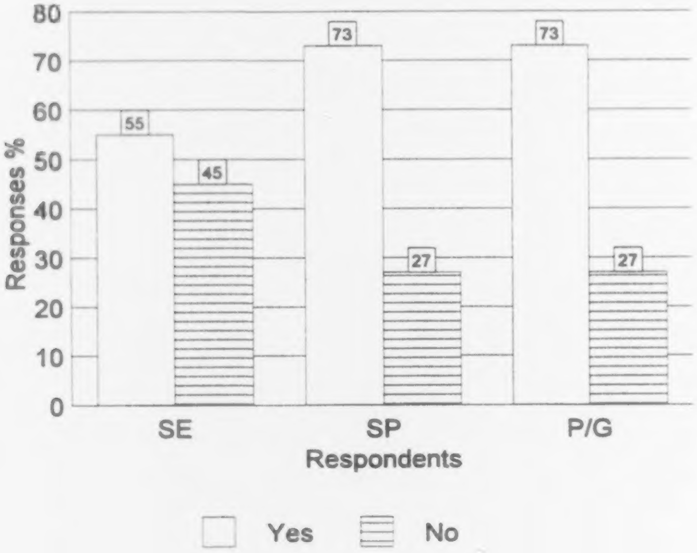


Figure 1D: Who made most of the decisions about choosing the supported employees' current jobs?

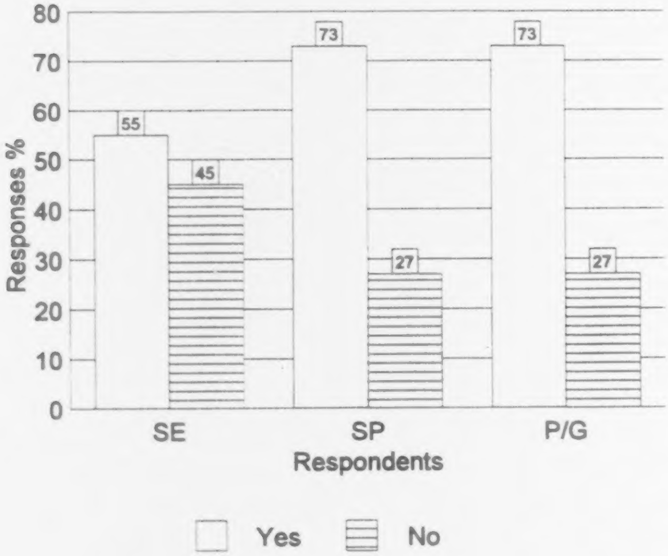
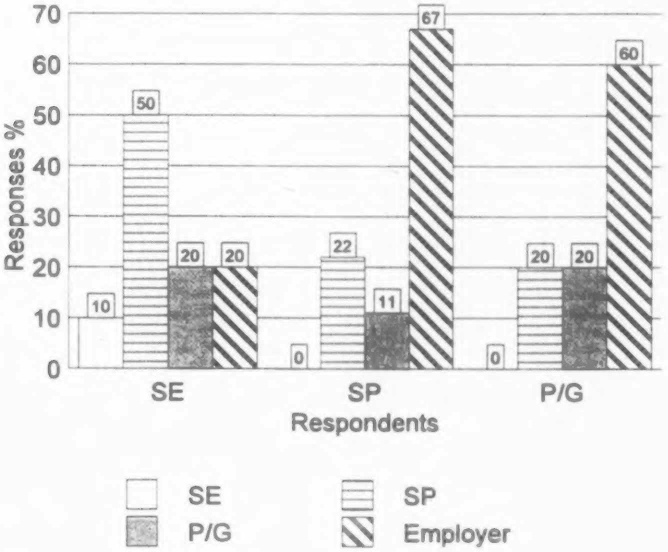


Figure 1E: Who decided the hours and days the supported employee worked?



The results of question #31 (*Why did the supported employee choose the job he or she currently has?*) show much disagreement. Where supported employees gave very active reasons for choosing their jobs (to keep busy, they were fun, and to earn money), service providers and parents gave very passive reasons (supported employees were advised by others, the job was better than a workshop, or the job was familiar) (See Figure 1F). The responses to question #34 (*Are the supported employees good at making decisions?*) may shed some light on the earlier discrepancies in that they show that supported employees think they are good at making decisions, and the parents and service providers disagree (See Figure 1G).

Figure 1F: Why did the supported employees choose their current jobs?

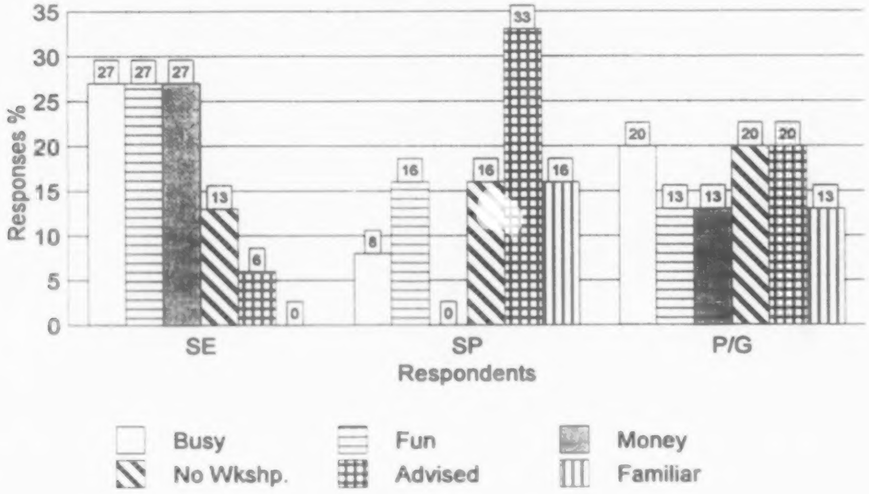
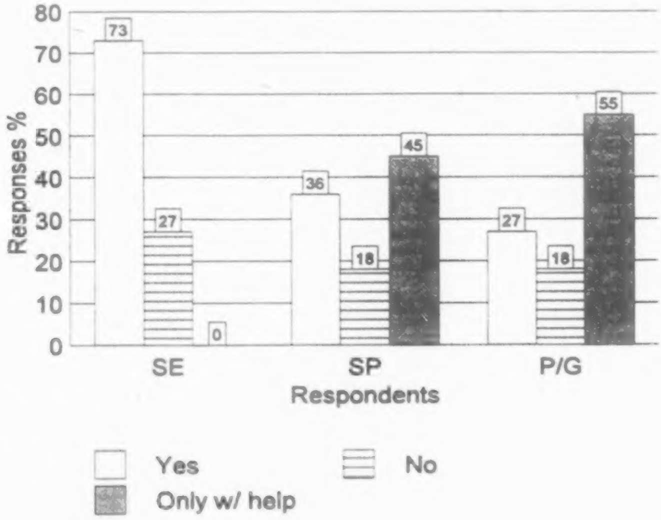


Figure 1G: Are the supported employees good at making decisions?



Category 2: Preferences of the Supported Employees

When each participant was asked question #3 (What is important to the supported employees about working, in general?), service providers and parents agreed, but their collective responses varied significantly from supported employees' responses (See Figure 2A).

When each participant was asked whether the supported employees wanted to try jobs that were different from their current jobs and whether supported employees made their service providers aware of that desire (question #28a: *Do the supported employees want to try any other kinds of jobs?* and question #28b: If the supported employees did want to try other jobs, did they tell their service providers?), the results show that the service providers and parents were aligned in their responses, which varied from the supported employees' responses. Supported employees responded that they did want to try other jobs, but often did not express this desire to their service provider (See Figures 2B-2C).

Responses to Questions Regarding Preferences

Figure 2A: What is important to the supported employees about working?

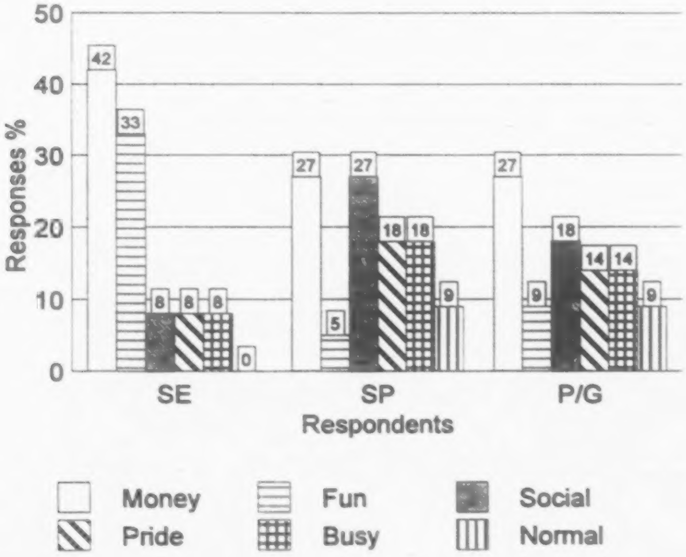


Figure 2B: Do the supported employees want to try any other jobs?

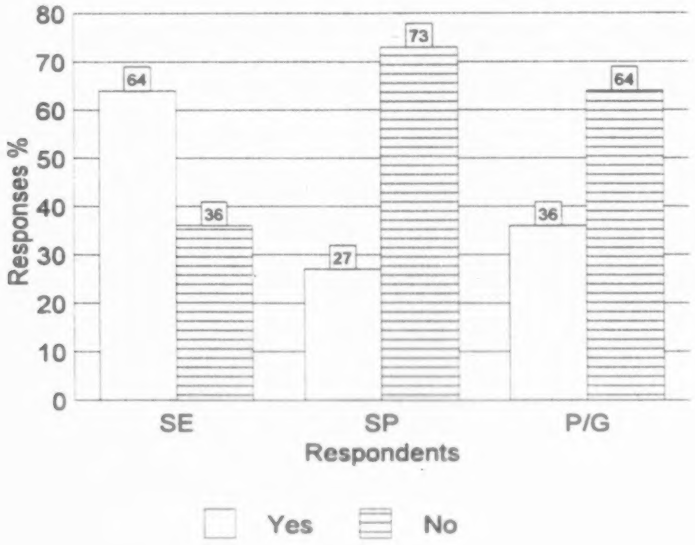
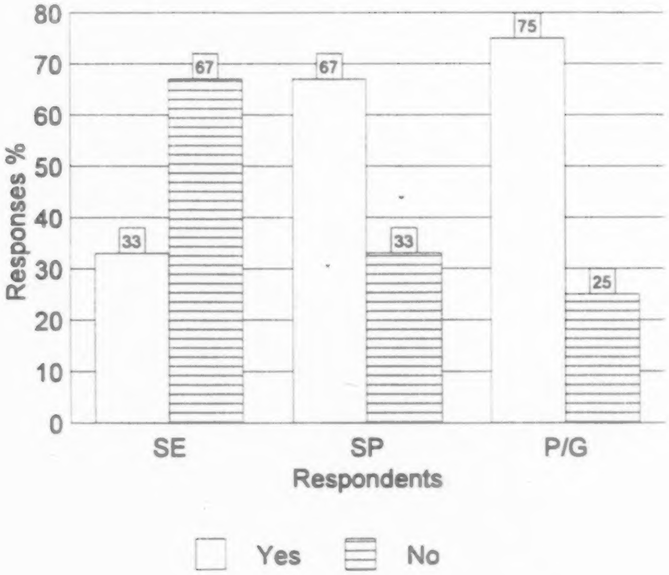


Figure 2C: If the supported employees did want to try other jobs, did they tell their service providers?



Category 3: Opportunities for Choice-Making

When each participant was asked question #14 (Did the service providers ask the supported employees what kinds of jobs they wanted to have?), the service providers and parents responded with a strong yes. Only half of the supported employees, however, responded positively (See Figure 3A).

The responses to question #21b (*How many interviews did the supported employees have when looking for a job?)* reveal two major results. First, everyone's responses showed very differing views of how many interviews the supported employees actually had. Second, supported employees have very few interviews before they take a job. (See Figure 3B).

Responses to Questions regarding opportunities for choice-making

Figure 3A: Did the service providers ask the supported employees what kinds of jobs they wanted to have?

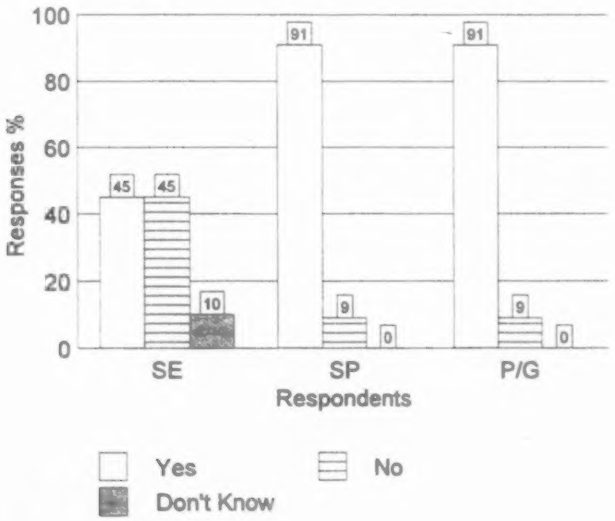
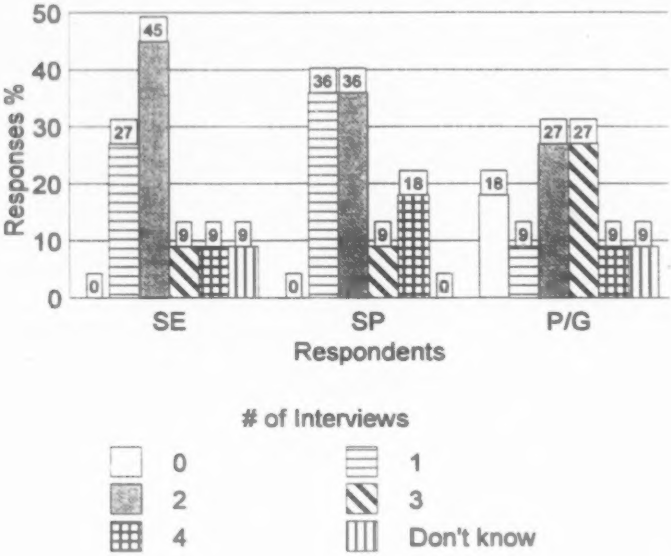


Figure 3B: How many interviews did the supported employees have when looking for a job?



Overall Agreement

A general analysis of questions within the three categories (control of decision-making, preferences of supported employees, and opportunities for choice-making) did reveal data that warrant discussion. Levels of agreement for each question on the interview protocol were originally scored from -2 (no agreement) to +2 (total agreement), as outlined in the Methods sections. The scores were transferred to a positive scale in order to calculate means and standard deviations: +2 = 5, +1 = 4, 0 = 3, -1 = 2, -2 = 1. In this scale, a score of 5 means total agreement and a score of 1 means no agreement. The most significant results appeared in category 1, control of decision-making. In an analysis of 10 questions investigating the control of decision-making in the supported employment job search process, the average level of agreement (on the scale of 1 to 5 described above) between supported employees and service providers is 3.1. The average level of agreement between supported employees and their parents or guardians is 3.1. The average level of agreement between service providers and the parents or guardians is 3.7.

Discussion

Due to the small sample size (11 case studies), this difference between 3.1 and 3.7 did not appear significant in an analysis of variance, but the author feels that a .6 difference in agreement level in the category in which supported employees are not included warrants further investigation (See Tables 1 and 2).

Table 1

Questions Investigating Control of Decision-Making

Question	SE/SP Agreement		SE/PG Agreement		SP/PG Agreement	
	M	SD	M	SD	M	SD
2a	3.0	1.4	2.5	1.7	3.1	1.5
10a	3.3	1.7	3.8	1.3	3.4	1.5
20	3.5	1.6	2.7	1.2	3.3	1.5
31	2.3	1.4	2.6	1.3	2.9	1.5
32a	3.5	1.4	3.4	1.6	4.1	1.1
32b	3.0	1.3	3.3	1.4	3.4	1.7
33a	2.7	2.0	3.0	1.7	3.5	1.2
34	3.3	1.2	3.2	1.2	3.8	1.2
36a	3.6	1.2	3.3	1.6	3.8	1.3
36b	3.3	1.2	3.6	1.4	4.3	0.8

Note. SE= Supported Employee, SP= Service Provider, PG= Parent/Guardian.

Table 2

Overall Means and Standard Deviations for Questions Investigating Control of Decision-Making

Agreement Groups	M	SD
SE/SP	3.1	.41
SE/PG	3.1	.47
SP/PG	3.7	.41

Note. SE= Supported Employee, SP= Service Provider, PG= Parent/Guardian. Means and standard deviations derived from Table 3.

In each of the categories (i.e. control of decision-making, preferences of supported employees, and opportunities for choice-making) interesting patterns appeared in the results that warrant discussion. The analysis of the category of control of decision-making, specifically, showed a tendency by service providers to overestimate the supported employees' choice levels, while the parents or guardians tended to underestimate supported employee choice.

In addition, there are significant discrepancies in responses surrounding general supported employee choice and specific supported employee choice. When the participants were asked general questions about how much choice supported employees were afforded (*Did the supported employees choose their jobs?* and *Did the supported employees have control...as much control as they wanted?*), all agreed significantly that supported employees had control. However, when they were asked about making specific decisions (*Who made most of the decisions...?* and *Who decided hours and days..?*), all agreed significantly that the service provider was in control. If the supported employees are not the people making the specific decisions during the job search process, it is questionable how accurate their responses were that indicated the supported employees "chose" their jobs and had "control" over the process.

Also noteworthy were the responses that service providers and parents gave to indicate their opinions that supported employees were not good at making decisions. This is particularly interesting when compared to supported employees' responses that they believe they are good at making decisions.

The results indicate that service providers and parents or guardians are aware of the importance of affording choice to supported employees and often believed they were doing just that. However, this does not appear to be reflected always in their actions or their expectations of the supported employees they were working with. This also indicates a lack of communication between care givers and the people being served. For example, the supported employees reported that the most significant reasons for choosing their jobs were to make money and have something to do. The service providers responded that supported employees chose their jobs because they were told to by someone else and because it was familiar. Parents were uncertain overall. These results indicate that the service providers tended to have low expectations about supported employees' abilities to make choices. There were low levels of agreement as to what is important to the supported employees about work, suggesting a lack of communication.

Implications and Further Research

Although the results of this study suggest that supported employment in the future should recognize the need and importance of customer choice and empowerment (Dwyre & Trach, 1996), practice often does not reflect this philosophy. Service providers and parents are clearly aware that choice is an important issue when it comes to finding employment, and the participants of this study felt that the supported employees did have choice and control in the overall job search process. The results, however, indicated that the step-by-step, specific decision-making did not actually come from the supported employees. According to Dwyre and

Trach (1996), this "casts obvious doubt upon whether the supported employees really did have choice and control" (p. 16). They go on to point out that including the supported employee more in the mechanics of the job search and the step-by-step decisions that need to be made is one way to assure true supported employee choice and control. Whether this problem area is more an issue of a lack of training for service providers on how to offer choice and include supported employees in the process, or is simply a service provider belief that supported employees are incapable, is unclear. It must be recognized that this situation is not one-sided, but is also related to the lack of communication on behalf of supported employees. It appears that supported employees, for one reason or another, do not always communicate their preferences. This suggests that training must be done with supported employees as well in order to open up the lines of communication. It does not matter how well trained the service providers are in affording choice if the supported employees never reveal their preferences, and vice versa. As indicated in the related literature presented earlier, training supported employees to make choices must begin early in the educational process, before learned helplessness and low self-esteem become serious barriers (Dwyre & Trach, 1996).

Throughout this study, there were a number of occasions where the parents' responses indicated that they were very uninformed about their daughters' or sons' job search process. Because the majority of supported employees interviewed in this study were of transition age (18-22), this lack of involvement and knowledge is particularly alarming and suggests that service providers must do more to include and inform parents and/or guardians about the process and the services being offered.

This study suggests that all players in the supported employment job search process could go through specific training to turn their belief of supported employee choice-making into positive practice. This training includes service providers learning to afford choice to supported employees, supported employees learning to express their preferences, and parents and guardians learning more about the process and how to get actively involved. Research in how to develop supported employment programs that improve these choice-making opportunities and include all participants more fully would be extremely beneficial for the future of supported employment in America.

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CHAPTER V

EMPLOYERS' AND SERVICE PROVIDERS' PERSPECTIVES REGARDING NATURAL SUPPORTS IN THE WORK ENVIRONMENT[1]

John S. Trach, Shelly E. Beatty, and Debra L. Shelden

Abstract: *Employers who have used natural supports in providing accommodations to supported employees were interviewed to determine their perceptions regarding the accommodation process. Results indicate that the employers did not provide any natural supports to supported employees beyond those they would offer to other employees, nor did the additional supports change the current work environment, except in a positive manner. In comparison, sheltered work service providers expressed more unrealistic expectations regarding natural supports than their community counterparts, who received in-service training for the provision of natural supports. Statistically significant differences were indicated between sheltered work service providers and both employers and in-service trainees regarding the likelihood that accommodations provided to supported employees would also be provided to employees without disabilities.*

Supported employment provides an avenue into the workforce for many persons with severe disabilities. Traditionally, ongoing support in the workplace consisted of a job coach, who

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would train the supported employee and then continue to provide follow-along services to maintain a particular level of job performance (Rusch & Hughes, 1990). This notion of supported employment has been expanded to include the concept of natural supports (Nisbet, 1992). Natural support models, which use supports that are either already available or can be developed easily at the work site, are an alternative to the intensive services provided by the job coach (Hagner, Rogan, & Murphy, 1992; Nisbet & Hagner, 1988). Little research has been conducted that focuses on the impact of supports developed using a natural supports model. The purpose of this study was to investigate how natural supports used by supported employees are perceived by employers and two groups of rehabilitation agency personnel, - those involved with supported employment and those who provide sheltered employment.

Variations of Employment Support

Many conceivable variations of employment support exist. Categorizing supports can help in conceptualizing the development of support, but the source must still be clearly identified and supports may fall into more than one category as well as be provided by more than one source (Trach & Mayhall, 1997). This section reviews four categories: (a) job coach, (b) natural supports, (c) traditional business supports, and (d) reasonable accommodations that may typify the variations of supports and their provision.

Job Coach Model. Agencies that assist persons with disabilities in accessing community employment often rely upon the job coach model to provide the necessary supports for successful job maintenance (Hagner et al., 1992; Nisbet & Hagner, 1988). The job coach model has become the most widely accepted and used model for implementing supported employment. Although somewhat successful, this model does have some limitations, such as low job retention rates. Nisbet and Hagner (1988) note that the retention rates of supported employees are low, somewhere between 44% and 70% after one year. Wehman, Hill, Wood, and Parent (1987) report retention rates of 55% to 60%. A second problem with this model is the fact that the job coach must spend a great deal of time working only with the supported employee. Often the work environment becomes dependent upon the job coach and any reduction of job coach time (i.e., "fading") is difficult to accomplish (Nisbet & Hagner, 1988). The presence of a job coach at the work site has been identified as a factor which may actually hinder the social integration of the supported employee (Ferguson, McDonnell, & Drew, 1993; Hagner, 1989; Kregel, Hill, & Banks, 1988; Rogan, Hagner, & Murphy, 1993). Often, the job coach is the primary trainer of the supported employee, bypassing the company's training program through which many new employees meet their coworkers. This dependency on the job coach may be compounded by the use of training techniques that are unusual to the business community and emphasize the differences between a supported employee and his or her coworkers (Hagner, 1989). These differences may be accentuated by another problem with the job coach model; both the job coach and the supported employee tax the limited available workspace at the employment site (Nisbet & Hagner, 1988). Therefore, the job coach model presents some potentially difficult problems for the rehabilitation service delivery system, relating to job retention rates, job coach fading, employee integration, socialization skills instruction, and cost effectiveness. The natural supports approach has evolved to address these problems.

Natural Supports. Natural supports is an alternative approach for developing the intensive supports required to help individuals with severe disabilities become successful on the job. Although several authors in the field have developed their own definition of natural supports, a consensus has not yet been reached (Test & Wood, 1996; Trach & Shelden, 1997). Both Nisbet (1992) and Rogan et al. (1993) placed emphasis not only on the use of natural supports, but also on how those supports are implemented by service providers. The effective use of natural supports depends on how well the service agency develops those supports with the employer. Nisbet (1992) stated, "the concept of natural supports is based on the understanding that relying on typical people and environments enhances the potential for inclusion more effectively than relying on specialized services and personnel" (p. 5).

In other words, a natural supports model deemphasizes specialized services and uses the supports that would naturally or typically be available to any employee from an employer or coworkers (Trach & Mayhall, 1997; Trach & Shelden, 1997). Murphy and Rogan (1994) defined natural supports as: "any assistance, relationships, and interactions that, (a) allow the person to secure, maintain and advance in a community job of their choosing, (b) correspond to the typical work routines and social actions of other employees, and (c) enhance individuals' work and non-work social life among their coworkers and other members of the community" (p. 6).

Traditional Business Supports. Businesses traditionally provide supports for all employees. Employer-sponsored training programs are the largest investment in human capital in the United States (Fabian & Luecking, 1991). Although providing natural supports in the workplace is not a new concept to employers, the notion of using these supports for persons with severe disabilities is new to rehabilitation personnel.

Employers and supervisors are looking toward the future of their workforce and extending the existing workplace supports to better manage a more diversified workforce. In fact, business leaders now know that the workforce of the future is going to be much more culturally diverse (Loden & Loeser, 1991). This means that managers and owners of businesses will need to consider various means of supporting a wide variety of employees. Human resource managers will not only need to know about different ethnic and religious backgrounds but also about gender differences in the workforce and disability-related issues. Common characteristics of leading companies managing diversity in the workforce include "support and involvement of senior managers, 'different but equal' operating philosophy and expanded definitions of effective performance" (Loden & Loeser, 1991, p. 21).

The main difference between supports for an employee with a disability and another employee is the terminology describing the support. In other words, although supports such as flex-time, paid vacation, sick leave, and social supports from coworkers are often called employee benefits, these same supports implemented for a supported employee are called accommodations (Burke, Weir, & Duncan, 1976; Mergenhagen, 1994).

Reasonable Accommodations. The term reasonable accommodation was first introduced in the Rehabilitation Act of 1973 (Rubin & Roessler, 1987). After passage of the Americans with Disabilities Act (ADA), business personnel developed a keen interest in the definition and impact of reasonable accommodations in the workplace (Esposito, 1993; Lord, 1992; Maslen, 1992; Peak, 1991). A key difference between the stipulations of the Rehabilitation Act of 1973 and the ADA is that all businesses, whether receiving federal monies or not, must now comply with the mandated nondiscriminatory hiring practices. This change in regulation has resulted in a wealth of business literature concerned with the definition of reasonable accommodation (Esposito, 1993; Lord, 1992; Maslen, 1992; Peak, 1991).

Accommodations include, but are not limited to, supervisor training to assist supported employees, modified work procedures, modified schedules, part-time and flextime positions, reassignment of employees with disabilities to vacant positions, and provision of readers or interpreters (Esposito, 1993; EEOC, 1991). Mancuso (1993) found that the most common accommodations implemented for persons with mental illness were modifications to the work schedule, such as flexible or part-time scheduling, or other interventions which required supervisors to alter their typical pattern of supervision. Many of these and other accommodations cost the employer little or nothing (Louis Harris & Associates, 1994). Therefore, reasonable accommodations do not seem to be very different from the accommodations that employers provide to their nondisabled employees (Mancuso, 1993).

Although the job coach model can provide the supports necessary for job maintenance, it may not always be the best model for the long-term support needs for persons with severe disabilities. The natural supports approach seems to be a logical link between traditional business supports and accommodations provided to persons with severe disabilities. Although natural supports may be less intrusive than a job coach, however, the positive and negative impact of these supports on the work environment must be evaluated. This study was designed to investigate (a) the perceptions of employers, supported employment professionals, and sheltered employment providers regarding the likelihood that employers would provide natural supports to all employees, regardless of disability; and (b) their perceptions of how the provision of support may have changed the work environment.

Method

This study used an ex post facto design (Bolton, 1979) within the context of an inservice training program for rehabilitation professionals. As part of their participation in the SPANS training program, trainees implemented a comprehensive model of natural supports to place supported employees into employment. The focus of this study is those supports that were developed in each employment site and reported in the trainees' final reports upon completion of the inservice training. A system of categorization of natural supports (Trach & Shelden, 1997) developed through the inservice training was used to further analyze the perceptions of trainees regarding the likelihood that employers would provide these types of supports for all employees and the ways in which these supports changed the work environment.

Trainee perceptions were contrasted with those of the employer at each of the sites where supported employees were placed and with those of a rehabilitation colleague who worked with consumers in a sheltered environment. Similarities and differences among these three key individuals with regard to the likelihood of providing natural supports to anyone on a regular basis and how the employment site may have changed as a result of these supports served as the focus of the study.

Participants

In this study, individual participants were grouped into triads, each consisting of two service providers and one employer, for investigators to analyze and compare the perceptions of each member of the triad regarding natural supports. One service provider in each triad had received inservice training on natural supports through the Systematic Planning to Achieve Natural Supports (SPANS) program (Trach & Mayhall, 1997; Trach & Shelden, 1992, 1993, 1997).

Triads. Participants were grouped into 10 triads for comparative purposes. Each triad included, (a) a service provider who had participated in the SPANS training, (b) another service provider who had not participated in the SPANS training but either worked in the same agency as the SPANS participant or functioned as a vendor of services purchased by the SPANS participant, and (c) an employer involved with a SPANS demonstration project in which a supported employee was working. The participants who had SPANS training met the following criteria:

1. The participant was currently employed at the same agency that he or she worked at during the SPANS inservice training program.
2. The participant placed an individual into a community job through the SPANS process.

SPANS participants. One member of each triad was a rehabilitation service provider involved in the SPANS inservice training program. At the time of their SPANS participation, these providers had worked a mean of 10.2 years (Range=6-19, S.D.=4.0) at their agency. As part of the training, each service provider completed a demonstration project in his or her own community through which he or she applied the SPANS model to place of one or two persons with disabilities who were looking for employment. The SPANS training focused on several objectives: (a) the definition of natural supports; (b) the rationale for using natural supports; (c) the benefits of natural supports; (d) a comparison of a SPANS model to traditional models; (e) the identification of natural supports; (f) strategies to involve employers in the development of natural supports; (g) the development of a consumer-driven plan for natural supports; (h) assessment of jobs using a natural supports model; (i) identification, matching, and implementation of natural supports with a supported employee; and (j) evaluation of implemented natural supports (Trach & Mayhall, 1997; Trach & Shelden, 1992, 1993, 1997). The SPANS participants were asked to explain the study to both the employers and the supported employees.

Sheltered work service providers. The second member of each triad was an agency staff member who worked in the same agency as the SPANS participant. These participants were sheltered work service providers identified by the SPANS participant as service providers who had an association with a sheltered work environment. Sheltered work service providers were initially contacted by telephone, at which time the purpose of the study was explained to them by the investigator. The sheltered work service providers had worked a mean of 7.2 years (Range=.5-18, S.D.=6.8) at their agency. Seven of the participants had heard of natural supports.

Employers. The third member of each triad was the employer who hired the supported employee receiving services from the SPANS participants through their demonstration projects. The employers did not participate in any of the SPANS training. Employers had a mean of 3.5 years of supervisory experience (Range=.25 - 12, S.D.= 3.8). Employers represented a variety of service-oriented businesses, with the number of employees ranging from 1 to over 50. Half of the employers had hired other supported employees.

Procedures

Data collection for this project was completed in two steps. First, the natural supports implemented for each supported employee were identified through a review of final reports submitted by each SPANS participant at the completion of their demonstration projects. Second, telephone interviews were conducted with each member of the triads.

Document review. Each final report submitted by the SPANS participants was reviewed to identify natural supports. The supports identified in the final reports were highlighted, numbered, and categorized according to type. Natural supports were identified according to the SPANS definition: human or technical resources that are available or can be developed in a setting; facilitate integration, acceptance, and satisfaction; and promote the goals and interests of all individuals in the setting (Trach & Mayhall, 1997; Trach & Shelden, 1993, 1997). The identified supports were categorized according to the following definitions:

1. Organizational supports are supports that involve the preparation and organization of activities in the setting, including but not limited to schedules, order of tasks, and location of materials.
2. Physical supports are supports that involve the design and function of physical objects and equipment in a setting, including those of either technical or nontechnical nature.
3. Social supports are supports that involve interactions with nondisabled individuals in an environment.
4. Training supports are supports that involve the extension of personal competence and skill through direct training and instruction.
5. Service supports are supports that involve accessing professional and nonprofessional disability-related services.
6. Community supports are supports that involve accessing community agencies and services which are available to all individuals.

(Trach & Mayhall, 1997; Trach & Shelden, 1993)

Upon completion of the categorization procedures, the supports were further classified into work-related and nonwork-related supports to evaluate accurately supports with which an employer would not be involved (e.g., some supports might be provided in the home or on the bus ride home). Thus, work-related supports were those supports that were most closely associated with task completion. Neither of these categorization processes were presented to any of the participants in the three groups during the data collection phase of the study. The categories were used only during the data analysis stage.

Telephone interviews. Recorded telephone interviews were conducted with each member of each triad. Telephone interviews completed by the investigator consisted of questions confirming demographic information, followed by a series of forced choice and open-ended questions. For each support identified in the review of the final report on a particular triad, the interviewee was asked how likely it would be for the employer to provide that same support to nondisabled employees. This question was scored on a range from 1 (never) to 4 (very likely). To investigate the effect of the natural supports on the work environment, the participant was asked whether or not natural supports had changed the work environment. If the participant indicated "yes," the investigator asked the participant to describe how the supports changed the work environment. Sheltered employment providers had to project their response because they were the only group which did not actually see the supports; however, the data were treated as perceptions because regardless of what the employers or SPANS participants may have seen, they were asked their opinion regarding the impact.

Reliability. A facilitator who participated in the SPANS program served as the reliability checker for the document review of the final reports. Both the investigator and the reliability checker highlighted, numbered, and categorized the supports listed in each of the final reports. The categories of supports were then compared. On the occasions when a support was placed into two categories, and the investigator and the reliability checker only agreed upon one of the two categories, the support was only placed in the agreed upon category.

Reliability was also calculated for the classification of the supports into work- and nonwork-related supports. If the investigator and the reliability checker did not agree, the support was placed into the work-related classification. Using these procedures produced 88% agreement for the categorization of supports and 93% agreement for classification of supports into work and nonwork related categories.

Data Analysis

Perceptions. The interviewer recorded participant answers on an interview protocol during the interview. The investigator questioned each member of the triad -- SPANS participant, sheltered work service provider, and employer -- on the likelihood that particular natural supports provided to supported employees would also be provided to other employees.

Difference scores. Three sets of difference scores were calculated for each of the 10 triads. The scores compared (a) the SPANS participants to the employers, (b) the sheltered work service providers to the employers, and (c) the sheltered work service providers to the SPANS participants. First, difference scores were calculated by subtracting the employer's answer from the SPANS participant's answer or the sheltered work service provider's answer. For example, with a response of *never* by either a SPANS participant or a sheltered work service provider (1), subtracting an employer response of *very likely* (4) yields a difference score of -3. Difference scores that were negative numbers reflected an underestimation of whether a support would be provided by an employer, and positive numbers were an overestimation of the likelihood that employers would provide the support. Consequently, agreement would be represented by scores equaling zero.

Dependent t-tests were used to compare the triads' perceptions on three levels: (a) across the three participant groups, (b) within each triad, and (c) within categories of supports across groups. It was recognized that multiple univariate tests can increase the likelihood of Type I error, however multivariate analysis was not possible due to the use of triads as the unit of analysis. The consistency of the findings across each of the 10 triads suggests that differences are not attributable to chance and supports the statistical findings.

Effect of natural supports in the work environment. Responses concerning the effect of the natural supports on the work environment were categorized as positive, negative, or no change to the work environment. Descriptive statistics were completed for the participants' perceptions of both the likelihood and the effect of natural supports on the environment.

Results

Document Review

A total of 88 different supports were analyzed by category to determine the frequency of implementation. Social supports (n=23) and physical supports (n=21) accounted for the highest percentages of the total supports implemented (26.1% and 23.9%, respectively). Community supports (n=4) accounted for the lowest percentage of supports (4.5%). Training, service and organizational supports were implemented at the rates of 20.5% (n=18), 14.8% (n=13), and 10.2% (n=9), respectively.

Likelihood of Implementing Supports for NonDisabled Employees

Employers, SPANS participants, and sheltered work service providers were asked how likely it would be for an employer to provide a support, currently used by their supported employee, to other workers. Employers stated 81.2% of the time that they would likely or very likely use the support for a worker without disabilities (see Table 1). Three employers stated that the supports they used for the supported employee were already in place for their workers without disabilities; however, the supports were used more often, or greater emphasis was placed on them when the worker with the disability needed them. Similarly, vocational rehabilitation professionals who participated in the SPANS inservice training stated 78.4% of the time that the employer would likely or very likely use this support with other employees (see Table 1). In contrast, sheltered work service providers responded that the employer would either likely or very likely use this support only 44.7% of the time .

Table 1

Distribution of Responses for Three Participant Groups on the Likelihood of Providing Support to All Employees

Likelihood of Providing Support	Employers	SPANS	Sheltered
Never	4.7	9.2	7.7
Not Likely	14.1	12.3	47.7
Likely	23.4	29.2	26.2
Very Likely	57 .8	49.2	18.5

Note. SPANS = Systematic Planning to Achieve Natural Supports.
Sheltered = sheltered work service provider.

Difference scores comparison among groups. For 6 of the 10 triads, SPANS participants underestimated the likelihood that the employer would provide the supports to other workers. In 3 of the triads, SPANS participants overestimated that likelihood. For all 10 triads the sheltered work service providers underestimated the likelihood of the employer using the supports for nondisabled workers. In other words, sheltered work service providers believed that the employer would not be likely to provide a support when an employer reported that they would (see Table 2).

Table 2

Comparison of Mean Difference Scores in Likelihood Rating
and Standard Deviations for All Possible Pairing by Triad

		SPANS/ Employers		Sheltered/ Employer		Sheltered/ SPANS	
Triad	n	MD	SD	MD	SD	MD	SD
1	6	-1.50*	1.05	-0.67	1.03	0.83*	0.75
2	3	-1.33	1.53	-2.00	0.00	-0.67	1.53
3	4	-0.25	0.96	-0.25	1.71	-0.40	1.52
4	6	-0.00	0.63	-1.17*	1.17	-1.17	1.47
5	4	-0.50	1.00	-1.50*	1.00	1.00	2.00
6	4	-1.00	0.82	-0.75	0.96	0.25	0.50
7	6	-0.67	1.37	-0.67	1.21	0.00	0.63
8	2	0.50	0.71	-0.50	0.71	-1.00	0.00
9	4	1.25	0.96	-0.50	1.29	-1.75*	0.50
10	10	0.70*	0.67	-0.50	1.08	-1.20*	1.03

Note. See Table 1. Note. MD = mean difference. * p.<.05

Dependent t-tests were completed to determine if there was a statistically significant difference in perceptions among all possible pairs in each triad. The t-test compared the mean differences of all possible pairs (e.g., SPANS participants compared to employers, sheltered work service providers with SPANS, sheltered work service providers with employers) to a null hypothesis that the summed differences equal zero. For all 10 triads, there were no statistically significant differences between the employer and the SPANS participant groups (p<.05). Statistically significant differences were found between employers and sheltered work service providers (p<.05). Statistically significant differences were also present between the sheltered work service providers and the SPANS participants (p<.05; see Table 3).

Table 3

Mean Difference Scores in Likelihood Ratings

by Participant Comparison Pairs

Comparison	MD	N
SPANS/Employers	-0.22	49
Sheltered/Employers	-0.80*	49
Sheltered/SPANS	-0.60*	40

Note. MD = Mean difference. * *p*<.05

Each of the ten triads were also examined individually to determine if there were statistically significant differences among the members of the triad. Dependent t-tests were completed for each triad pairing (N=30). Of the 10 triads, 5 had statistically significant differences between participants (p<.05) in at least one of the pairs. Statistically significant differences between the SPANS participant and the employer occurred in triads 1 and 10. Also, statistically significant difference between the sheltered work service provider and the employer occurred in triad 4 and 5. Finally, statistically significant differences between the SPANS participant and the sheltered work service provider occurred in triads 1, 9, and 10 (see Table 2).

Types of supports. The six different categories of supports were also analyzed to determine if statistically significant differences in perceptions occurred between the pairs used in the difference score calculations. That is, investigators tried to determine not only whether there were differences in the perceptions of each member of each triad, but also which categories of natural supports these differences involved. Five of the six different categories of natural supports had statistically significant differences. The greatest number of differences occurred between sheltered work service providers and employers. Sheltered work service providers consistently underestimated the likelihood that employers would provide social, physical, organizational, and community supports. SPANS participants generally agreed with employers' perceptions; they underestimated only employers' willingness to provide organizational supports. Sheltered work service providers underestimated the likelihood that physical and training supports would be provided when compared to SPANS participants (see Table 4).

Table 4

Mean Differences and Standard Deviations in Likelihood Rating of Comparison Pairs by Natural Supports Category

		SPANS/ Employers		Sheltered/ Employer		Sheltered/ SPANS	
Category	n	MD	SD	MD	SD	MD	SD
Social	16	-0.19	1.47	-0.69*	1.30	0.50	1.21
Physical	12	-0.50	1.24	-1.25*	1.06	-0.85*	1.34
Training	16	0.13	1.31	-0.50	1.03	-0.63*	1.20
Service	8	0.13	1.13	-0.38	1.19	-0.50	1.31
Organizational	9	-0.67*	0.71	-0.89*	1.05	-0.22	1.39
Community	3	0.33	1.15	-1.67*	0.58	-2.00	1.00

Note. See Table 1. Note. MD = mean difference. * $p < .05$

Effect of Natural Supports in the Work Environment

Of 10 employers, 6 responded that there had been no change in work environment due to implemented supports. Three of the employers responded that the support had changed the work environment in a positive fashion. No employers responded that the change to the work environment had been negative. One employer stated he had been hired after the supported employee and therefore could not state if a change had occurred.

Six of the SPANS participants said there was no change in the work environment. Four of the 10 SPANS participants said there was a positive change as a result of the natural supports in the work environment. No SPANS participants responded that there was a negative change in the work environment.

Of the sheltered work service providers, 3 felt that no change would result from the natural supports implemented in the work environment. Seven stated there would be a positive change to the work environment as a result of the natural supports implemented. Of these 7, 2 sheltered work service providers mentioned some negative effects of the supports on the work environment, but felt overall the effect would be positive.

Descriptive statistics were used to delineate the participants' answers. Each triad was compared to examine the amount of agreement among its members. SPANS participants' responses matched employers' responses 5 out of 10 times (50%). Sheltered work service providers' responses matched employers' responses 4 out of 10 times (40%). The sheltered work service providers' and the SPANS participants' responses matched each other 4 of 10 times (40%).

Discussion

Data analysis showed differences among the three groups of participants in a variety of ways: (a) employers approved the use of supports more often than sheltered work service providers thought they would; (b) employers' perceptions of the likelihood of implementation closely reflected those of SPANS participants; (c) sheltered work service providers consider fewer categories of supports as viable than either the employers or SPANS participants; and (d) sheltered work service providers perceived the most change in the work environment as a result of supports provided. These findings lead to the conclusion that employers have the most positive and accommodating perspective on providing supports to employees. Also, it seems that sheltered workshop personnel perceive supports as much less likely to be considered and more likely to change the work environment than employers or other rehabilitation professionals using natural supports. The sheltered work service providers' perceptions might be attributed to not actually seeing the supports in place, which might be another reason to encourage staff from segregated settings to visit community employment sites more often. The implications for supported employment service delivery and rehabilitation counselors' roles warrant discussion and further research.

Perceptions

The results of this study indicate that employers do not view the supports provided to their supported employees as different from those provided to other employees. The high percentage of *very likely* and *likely* (81.2%) responses suggests that employers are willing to provide these supports to both their workers with disabilities and their other employees. Therefore, considering the employers' reported willingness to provide supports for all employees, job developers should focus their approach on how the worker would benefit the employer and workplace. The emphasis should be on the employer hiring a reliable worker, not on charity or possible bonuses associated with hiring a supported employee. Rehabilitation counselors should continue to promote persons with disabilities in terms of what they will contribute to the workplace rather than focusing on disability. They must take the lead in ensuring that the positive aspects of their consumers are accentuated, presenting the need for support as an aspect of employment environment from which all employees benefit. A positive perspective regarding the provision of supports will result in more options for the consumer and a more accessible workplace for all.

Statistically, SPANS participants' answers were not significantly different than employers' answers, which indicates that SPANS participants were in touch with employers' expectations and the work context. Both SPANS and sheltered work service providers underestimated employer willingness to provide organizational supports. Organizational supports include, but are not limited to, flexible scheduling, centralizing supplies, and order of tasks. This difference may indicate that employers may be more willing to provide these types of supports than SPANS and sheltered work service providers believe them to be. Consequently, this category of support is probably underused as both the total number of supports implemented and the perceptions of the service providers indicate. Rehabilitation counselors should be aware of this employer perspective and counsel consumers and job placement personnel to consider organization supports as a viable strategy. Of course, respect for the integrity of the work environment and appreciation of the potentially threatening changes to established routine should be taken into account when considering these supports. Creativity in solutions that focus on the common benefit and employer satisfaction should be used as guiding principles.

In only one triad was there a statistically significant difference between the employer's and the SPANS participant's answers. This SPANS participant was one of only three who overestimated the employer's perceptions of the supports (the other two overestimated only slightly). This finding reminds us that even with intensive training aimed at changing attitudes and influencing beliefs, there will continue to be personality variables and professional perspectives which affect professional willingness to consider natural supports. We must learn to recognize those perspectives and continue to shape them through supervision and continued professional development.

The responses of the sheltered work service providers indicate that they perceive a greater difference between the supports that are provided to supported employees and supports provided to other workers. Sheltered work service providers differed significantly from both the employers and the SPANS participants (see Table 3), underestimating--in every triad--the likelihood that employers would provide the same supports to other workers (see Table 2). In every category of supports, sheltered work service providers underestimated employers likelihood of providing support, and in four out of six categories those differences were statistically significant (see Table 4). In the category for training supports, they showed a statistically significant difference from SPANS participants perceptions. This may reflect the “get ready for” phenomenon of sheltered environments.

These differences of perceptions may be explained several ways. First, several of the sheltered work service providers did not regularly deal with community placements. Therefore, they may not have a good working knowledge of the types of supports employers are willing to provide to their employees. Second, many of the sheltered work service providers worked with persons in sheltered work settings and may not have had the opportunity to observe the relatively high level of success and independence of individuals with disabilities in the community. Finally, none of the sheltered work service providers had previously been involved with training on the use of natural supports in the workplace other than agency inservice training. This lack of additional training may make identifying existing supports in the workplace more difficult for the sheltered work service providers.

It is clear that the sheltered work service providers' perceptions differed from those of the other two groups. Consequently, rehabilitation counselors should evaluate referral information from sheltered settings for limitations and a potential negative bias regarding success in supported employment. Also, these findings indicate that inservice training should provide opportunities for sheltered service providers to observe and interact with community programs from which they can gain perspective and a better understanding of competitive work contexts.

Effect of Natural Supports in the Work Environment

Employers generally responded that there was no change in the work environment as a result of the supports implemented for the supported employee. This seems to corroborate the finding that employers did not perceive a difference between the supports they provided to their supported employees and their other workers. It may mean that the supports being used are truly "natural" or common and are already effectively implemented (i.e., intrinsic) within the work environment.

In over half the triads, SPANS participants felt that no change had occurred as a result of the supports implemented for the supported employee. When the SPANS participants did perceive a change, they reported a positive change. This view on the effect of the natural supports in the environment seems to agree with their perception that employers would provide the same supports to supported and nonsupported employees. The results showed almost identical responses, which suggests that SPANS participants and employers view natural supports in similar ways. This similarity may be a result of the natural supports inservice training for SPANS participants; they may be better able to identify existing supports in the work environment, or they may be better able to develop the least intrusive supports for a supported employee.

The majority of sheltered work service providers also reported that there would be a positive change in the work environment from implementing natural supports. This perception of positive change in the work environment can have either positive or negative implications, depending on the viewpoint of the sheltered work service providers. The sheltered work service providers may view the change as positive because they believe it brings supported employees into the community and contributes to the work environment. This belief is an important first step in developing vocational rehabilitation providers with community focus. On the other hand, the sheltered work service provider may view the positive change in work environment paternalistically, as a charitable act by the employer, or as a means for the employee to meet more people, instead of seeing the job as an essential component of a successful business.

SPANS participants and employers seem to have similar views about the supports provided to employees, however, results indicate that the sheltered work service providers had statistically significantly different perceptions than employers. This difference should be considered when developing training for placement personnel, particularly as many rehabilitation agencies are converting their workshops and possibly reassigning workshop staff to job placement positions within the agency. The training must be focused not only on skill improvement, but changes in attitudes and greater familiarity with competitive employment contexts. This magnitude of change necessitates an intensive inservice program that allows time for the trained person to practice new skills in the field, under supervision, and to discuss their changing attitudes and perceptions with peers and supervisors. The responses of the SPANS participant group suggest that with appropriate training on natural supports, vocational rehabilitation personnel can shift from the existing social service viewpoint to a more business-like and employer-oriented view through a reorientation in job development and employer relationships.

The training of new supported employment staff must also include job development issues. This study suggests that employers do not perceive a difference between the supports provided to a supported employee and their other employees. Furthermore, these results seem to indicate that job development and placement professionals should focus on the benefits the employer receives from having a dependable worker on his or her staff rather than emphasizing tax credits, assurances to employers that the job will be completed "in spite" of the workers performance, or other external "bonuses" involved when hiring a supported employee.

Perhaps the most critical information garnered by this study is the employers' perceptions of the effect of natural supports on the work environment. Employers are aware of the work environment before and after hiring a supported employee. The employers in this study perceived no real change in their work environments as a result of implementing natural supports. This indicates that natural supports are basically nonintrusive to the work environment and could be considered in virtually all placements.

Implications for Rehabilitation Counselors and Future Research

There are many implications from this study for rehabilitation counselors in the areas of service, training, and research. First, service to potential supported employees must promote consumer and employer involvement. The counselors must create opportunities for employment and natural supports development in collaboration with employers and consumers and not focus on preparation for work and fostering continued dependence on the system through the presence of job coaches. Referral information regarding consumer potential might be suspect and too limited if provided exclusively from sheltered settings. New sources of information must be considered.

Rehabilitation counselors should investigate further the merits of including some form of natural supports provision in inservice training and monitor its impact in terms of increased independence of supported employees. The same natural supports conceptualization and experimentation should be infused into preservice training. Finally, this study can only serve as a pilot. There are certain areas in which more research is needed.

This study was limited by its small sample size. Further research needs to be completed with a greater number of employers and rehabilitation service providers in other regions of the country to generalize results to a broader population. The sample used in this study was not randomized. The SPANS participants were chosen to participate in the inservice training because of their excellence in the field of rehabilitation, and consequently may have always been better able to perceive employers' viewpoints. Thus, further research needs to be conducted on a randomized sample to identify if natural supports inservice training programs could positively change vocational rehabilitation service providers' original perceptions.

The employers interviewed for this study had already hired a person with disability. These employers may be biased because they have shown a willingness to work with persons with disabilities. Future research should be completed on a mixture of employers who have and have not hired supported employees in the past.

The telephone interviews were not anonymous, and therefore the participants may have answered in a way they felt was socially appropriate. The interviews were also conducted in a self-report format. Further research should examine the types of supports that are available to both supported employees and their coworkers through observation of the work site and other more objective means.

Future research should continue to investigate vocational rehabilitation service providers' perceptions of natural supports in the community workplace, and why they perceive the supports to have a positive effect on the work environment. The perceptions of vocational rehabilitation staff should be examined in greater depth. This study showed that the sheltered work service providers viewed the effects of natural supports differently than the other two groups, but it did not investigate why their perceptions were different. Further research needs to be completed on the reasons for the difference in perception.

Future research should also examine the perceptions of the supported employee and his or her coworkers. These two groups could add important insights not only into the likelihood of the supports being provided to all employees, but also the effect of those supports on the work environment. Talking to the people who use the supports would provide a different viewpoint than do the people who develop or agree to implement the natural supports.

This study shows that employers are willing to provide a variety of supports to all of their employees, whether they have disabilities or not. It also shows significant differences in the perceptions of vocational rehabilitation service providers within the field and within specific agencies as well. This study was an important first step in developing an empirical research base that examines both employers' and the vocational rehabilitation service providers' perspectives on the use and effect of natural supports in the work environment.

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CHAPTER VI

SECONDARY TRANSITIONAL EXPERIENCE PROGRAM: A DESCRIPTIVE ANALYSIS OF OUTCOMES OF HIGH SCHOOL EXITERS

Jennifer R. Horn, John S. Trach, and Sharon L. Haworth

Abstract: *This study focused on a collaborative high school program involving the Departments of Rehabilitation Services and Special Education. The purpose of the study was to determine what outcomes were achieved by former students in the areas of employment, post-secondary education, independent living, community participation, and adult services. Possible predictors of outcomes were also analyzed. In addition, information was collected on what high school exiters perceived as barriers to achieving these outcomes. Findings indicated that most exiters were employed, living with parents, and involved in their communities. Possible predictors were found for the outcomes of current employment status, hourly wage, and postsecondary education.*

During the past fifteen years much research in the area of special education has focused on the process of transition from school to adulthood for students with disabilities. Although several pieces of legislation set the stage for transition and the preparation of students for adult life, the passing of the Individuals with Disabilities Education Act Amendments of 1990 (IDEA P. L. 101-476) was critical in raising awareness of the significance of transition planning and made this a mandated feature of special education. The law defined transition services as:

> A coordinated set of activities for a student, designed within an outcome-oriented process which promotes movement from school to postschool activities, including postsecondary education, vocational training, integrated employment (including supported employment), continuing and adult education, adult services, independent living, or community participation. (Section 602[a])

This law has two primary implications. It suggests that transition should focus on the achievement of functional postschool outcomes such as further education, employment, independent living, and community participation. The law also implies that coordination of services is vital for these outcomes to occur. An implied goal of transition is the continuous flow of nonduplicated services from school to adulthood (Everson & Moon, 1987). Transition services, therefore, should focus on outcomes and the coordination of services among related professionals.

In keeping with the goal of transition, data on postschool outcomes for students with disabilities are critical. Legislation such as the Education for All Handicapped Children Act Amendments of 1983 (PL 98-199) mandated that state education agencies collect information on youth who leave their programs each year and use that information to plan the services for the following year. Models and programs such as Outcome Based Education (Thurlow, 1993; Ysseldyke, Thurlow, Bruininks, Gilman, Deno, McGrew, & Shriner, 1992) have been created in order to better facilitate successful outcomes for students with disabilities. Goals 2000 (U.S. Department of Education, 1994) and programs such as The Secretary's Commission on Achieving Necessary Skills (SCANS) (Copple, Kane, Matheson, Meltzer, Packer, & White, 1992) illustrate a new awareness of the need for outcome based education for all students. This new awareness has led to a push for program evaluation and follow-up on students who have left the school system to determine the success of school programs and to create a stronger sense of accountability in education. Research indicates, however, that although there is federal, state, and local recognition of the importance of transition services, postschool outcomes for students with disabilities are still unfavorable (Blackorby & Wagner, 1996; Halpern, 1985; Halpern, 1990; Haring & Lovett, 1990; Hasazi, Gordon, & Roe, 1985; Wehman et al., 1985; Mithaug et al., 1985).

Many follow-up studies have been conducted that attempt to link school programs to the success of individuals once they leave school (Haring & Lovett, 1990; Hasazi, Gordon, & Roe, 1985; Mithaug et al, 1985; Wehman et al, 1985). These studies have identified outcomes for students with disabilities and suggested variables that may predict success after high school. Although there is some variability in the suggested predictors, some studies indicate that paid work experience during high school is a good predictor of future employment (Hasazi et al., 1985; Mithaug et al., 1985; and Wehman et al., 1985) In addition, many of these studies indicate that adult services, especially vocational rehabilitation services, have little input in assisting transition-aged youth in finding and keeping a job (DeStefano & Wagner, 1993; Hasazi et al., 1985; Mithaug et al., 1985; and Wehman et al., 1985).

In order to achieve positive postschool outcomes for students with disabilities the assistance, expertise, and cooperation of a number of service providers is required. The professionals who have been consistently mentioned as important members of the transition team include special educators, vocational rehabilitation counselors, and vocational educators (Everson, 1990; Hanley-Maxwell & Chadsey-Rusch, 1985; DeFur & Taymans, 1995; Szymanski, Hanley-Maxwell, & Asselin, 1992). Hasazi (1985) suggested that the mandates of the EHA Amendments of 1983 provided a great opportunity for interagency collaboration in terms of working together to obtain information on students who had left the school system. Although the emphasis on interagency collaboration seems imperative to facilitating transition success, it does not always occur. The lack of cooperation between schools and adult services, which breaks the flow of supports when these students leave high school, has been suggested as one reason for poor postschool outcomes (Halpern, 1985; Will, 1984).

Purpose

Based on the research that has been conducted thus far, it is clear that students with disabilities are still not achieving success in areas of adult life such as employment, independent living, and community participation (Blackorby & Wagner, 1996; Halpern, 1994; Halpern, 1990; Haring & Lovett, 1990; Hasazi, Gordon, & Roe, 1985; Wehman, Kregel, & Seyfarth, 1985; Mithaug, Horiuchi, & Fanning, 1985). Although many factors may contribute to this phenomenon, the break in the flow of services from school to work is certainly one significant factor (Halpern, 1985; Will, 1984). One way of ameliorating this problem is to create high school programs that require collaboration between special education and rehabilitation services in order to facilitate a more effective transition.

The purpose of this study is to determine what outcomes were achieved by individuals with disabilities who exited a formalized collaborative work study program in high school involving both the Department of Special Education and the Department of Rehabilitation Services (The Secondary Transitional Experience Program). Data were collected on outcomes in the areas of (a) employment, (b) post-secondary education, (c) independent living, (d) community participation, and (e) adult services. In addition, this study attempts to determine if any relationships could be found between student and programmatic characteristics on the one hand and post-school outcomes on the other.

Methods

Description of Program

The Secondary Transitional Experience Program is a collaborative work cooperative program funded, in part, by the Department of Rehabilitation Services (DORS) and administered by schools. Students are eligible for the program if they have a disability, are receiving special education services, and meet DORS eligibility requirements. School personnel are responsible for referring students whom they determine would benefit from this program. Students' desire to work and whether they are pursuing an academic or vocational education are also taken into consideration.

The Secondary Transitional Experience Program is designed to provide work experience and to promote future independence in the areas of employment, independent living, integration, and community for students with disabilities. Goals of the program stress individualized, coordinated vocational planning and "integrated, paid, unsubsidized community employment" (Illinois Department of Rehabilitation Services, 1991).

Participants

The participants in this study were a sample of individuals who had exited high school from a suburban, midwestern school district between the years of 1990 and 1995. (One student exited high school in 1990, 2 exited in 1991, 2 in 1992, 3 exited in 1993, 6 in 1994, and 4 students exited in 1995.) These eighteen students were interviewed from an original sample of 47 students, all of whom had participated in the STEP program in the district (38.3% participation rate). The sample group consisted of those students who were able to be located and agreed to participate. Twenty-five exiters were contacted; 7 chose not to participate, while 18 former students agreed to be interviewed. These students were labeled by the schools as trainable mentally disabled (TMD) (4 or 22.2%), educable mentally disabled (EMD) (10 or 55.6%), Learning Disabled (LD) (2 or 11.1%), and behaviorally/ emotionally disabled (BD/ED) (2 or 11/1%). The students exited high school by either graduating, dropping out, or reaching 21 years of age and therefore aging out. Ten females and 8 males who ranged in age from 20.6 to 26.5 years of age at the time of the interview (mean age = 23.3) participated in the study.

Fifteen of the former students (83.3%) were in self-contained classrooms during high school, while only 3 students (16.7 %) received school services in resource rooms. While all of the students participated in the STEP program, their years in the program ranged from 1 to 5 with a mean of 2.22 years and a standard deviation of 1.06. Two of the students interviewed were African-American (11.1%), 1 student was Asian (5.6%), and 15 were Caucasian (83.3%).

Although the former students were always the primary provider of information, in some situations parents or guardians were present and assisted with providing information. All attempts were made to direct questions to the STEP exiters and to encourage their primary participation in the interview. In addition, it should be noted that one individual used a communication device and limited signs to communicate which resulted in some missing data due to the complexity of survey questions and another individual who also had limited communication agreed to participate, but then became disinterested and distracted at which time the interview was discontinued. One other former student who was interviewed by phone did not want to complete the hour long interview but agreed to answer questions within the employment section and several of the questions from the other general outcome sections.

Survey Instrument

The survey instrument consisted of a consent form, high school background/demographic sheet, and the questionnaire and was comprised of yes-no, multiple choice, and open-ended questions. The instrument was created as a tool for the program evaluation of the local Secondary Transitional Experience Program. The questionnaire addressed the following post-school outcomes: employment, post-secondary education, independent living, and community participation. The survey also included questions regarding types of high school classes taken, participation in IEP meetings, knowledge of adult services, and students' perceptions of the effectiveness of high school and the amount of control they had in determining their futures. For the purpose of this study, specific employment outcomes were the focus and were analyzed along with general outcome responses in the areas of residential status, post-secondary education, community participation, and adult services. Portions of the survey were adapted from previous follow-up or follow-along instruments (Menchetti, English, Burkhead, Leach, & Johnson, 1991; State of Florida Department of Education, 1988; Hull, 1990; "Year After", nd.)

The instrument was used to conduct a face-to-face or phone interview with each participant that took approximately one hour. Fifteen interviews were conducted in person and 3 interviews were conducted over the phone. Face-to-face interviews were conducted to increase survey return, to ensure that former students were the respondents (as opposed to a parent or other individual), and to ensure that the participant understood the questions being asked. Phone interviews were only conducted in the case that an exiter was unavailable to meet in person, did not wish to meet, or was in an inaccessible location. A portion of the interviews were recorded and checked for reliability.

Interviewers

Two graduate research assistants performed the data collection for this study. The interviewers prepared by conducting the survey with one another and by conducting a pilot with eight students who were currently enrolled in the STEP program. A reliability check was performed by a third graduate research assistant who was trained by the first author.

Procedure

Lists of possible participants were acquired from the administrator of the Department of Special Education. The lists included the names, phone numbers, and addresses of all of the possible participants who left the targeted high school district between 1990 and 1995 and had participated in the STEP program. These individuals were then contacted by phone to determine their willingness to participate. If they agreed to participate, a meeting was arranged to take place at either their former high school, the local Department of Rehabilitation Services office, the individual's home, a local restaurant, or over the phone. At that meeting the survey was conducted. A consent form was read and provided to interviewees. In cases where the individual had a legal guardian, both the respondent and the guardian read (or were read) the consent form and gave permission. The interview was conducted by having the interviewer read the questions and record the participants' responses on the instrument. Participants were provided with a copy of the survey if they wished to follow along while the interviewer read the questions. If the respondents gave permission, their files were then checked to get more detailed demographic information, such as type of classroom, length of time in STEP, type of vocational services received, length of time their Rehabilitation Services case remained open, and their disability category in high school.

Validity

In order to address content validity, the instrument was developed from pre-existing instruments that had been used to perform similar follow-up studies (Menchetti et al., 1991; State of Florida Department of Education, 1988; Hull, 1990; "Year After", nd.) In addition, STEP counselors and pre-vocational counselors (secondary special education teachers who are responsible for career development and placement) were interviewed to determine which questions should be included in a follow-up survey of this nature. The survey was then piloted with 8 current STEP students to determine (a) whether the students understood the questions in the survey, (b) whether the students could respond to the questions in the survey, and (c) approximately how long the survey would take to administer. The survey was then revised based on findings from the pilot. Finally, the survey was submitted to the local Rehabilitation Services Supervisor and to the Director of Special Education for their approval.

The instrument was also written in such a way as to prevent the internal validity threat of acquiescence bias (Heal & Sigelman, 1994). Six pairs of questions were used to assess acquiescence bias. Each pair of questions asked for the same information, but were phrased in such a manner that a respondent would have to answer “yes” to one question and “no” to the other question in order to provide the same information. Each response was scored in the following manner: “yes” was given a score of +1, “no” was given a score of -1, and “I don’t know” was assigned a score of 0. The scores were then added for all six pairs. A score of 0 would reflect an accurate response to all questions. If a respondent had a score of +6 it would indicate that he or she answered 50% of the questions positively, suggesting a tendency to acquiesce without regard to the content of the question. Likewise, if a respondent had a score of -6, that individual may have had a tendency to say no regardless of the meaning of the question (Dwyre, 1995).

Reliability

Seven interviews (38.89%) were tape-recorded and tested for reliability. The surveys were not randomly selected due to the fact that some of the interviews took place before it was decided to perform reliability and some of the interviews were too difficult to record. As mentioned above, this follow-up study began as an evaluation for the Department of Special Education at which time 8 interviews were performed. Of the remaining 10 surveys, one was not recorded because it was conducted over a phone that did not have a speaker; one was not recorded because the respondent did not speak, but used a communication board and signs; and the last one was not recorded because the respondent seemed uncomfortable with the tape recorder and repeatedly walked in and out of the room where the interview was taking place. Therefore, only 7 interviews were recorded and then checked for reliability.

All of the objective questions (including those questions that were not used for analysis in this study) and the 12 questions concerning employment history (i.e., type of job, length of job, and reason for leaving last 4 jobs) were included in the reliability check. The graduate assistant checking reliability listened to the audio-tape of the entire interview and completed a blank survey based on the respondent=s answers. Reliability was then calculated by computing the number of agreements over the total number of agreements and disagreements. Total reliability was calculated as 88.35%, ranging from 81.32% to 92%. Consensus was then reached on questions in which disagreement occurred.

Analysis

Four types of analysis were used in order to address the research questions. Descriptive statistics were used to report the general outcomes for individuals who participated in the Secondary Transitional Experience Program. Descriptive statistics were also used to report what STEP exiters reported as obstacles to achieving these outcomes. Chi-square tests of association and analysis of variance were utilized to calculate the relationship between personal and programmatic characteristics and general post-school outcomes, in addition to more specific employment outcomes. Finally, linear regression was used to calculate relationships between predictors and wages earned after high school.

Results

Acquiescence

As explained in the Methods section, 6 pairs of questions were incorporated within the survey instrument in order to determine whether the respondents had a tendency to answer "yes" or "no" to questions on the survey. Results indicated that none of the respondents had scores that exceeded positive or negative 3, suggesting that none of the interviews were affected by acquiescence bias (Dwyre, 1995).

General Outcomes

Employment. Fourteen exiters reported that they were working at the time of the interview (77.8%). (Working was defined as competitive, paid employment and did not include volunteer work or sheltered/day activity programs.) Although 4 respondents were not employed at the time of the study, 17 exiters reported having been employed since they left high school. Respondents reported having jobs in the following areas: food service, janitorial/maintenance, clerical, light industrial, service, construction, agriculture, and other. In addition, 1 exiter was currently working in a sheltered workshop/day activity center. One other student had previously worked in a sheltered setting and at the time of the study had a volunteer position doing laundry for a nearby household.

The hours per week that former students worked varied from 4 hours per week to 55.5 hours per week, with a mean of 27 hours worked per week. Although most of the individuals (88.9%) reported that they like their current or most recent job, 38.9% indicated that they would like to work more hours per week. The respondents had an average of 2.53 jobs after exiting high school, and their most common reason for leaving a job was quitting (48%) .

Respondents (N = 16) also varied in terms of the amount of money they made per hour. Salaries ranged from a minimum of $0.00 per hour to $23.00 per hour with a mean of $5.48 per hour (SD = 5.015, median = $4.87, and mode = $5.50). Excluding those that did not make any money per hour (they were not included in the working group, because they volunteered or worked in a sheltered workshop) and excluding the individual who made $23.00 per hour, the average wage earned per hour was $4.98 (median = $5.00, mode = $5.50, SD = .759, N = 13).

Post-secondary education. The majority of the individuals who responded to this question reported never having continued their education (82.4%, N = 17). All three of the students who reported continuing their education attended community college; 2 students had labels of behavioral/emotional disorder and 1 was categorized as learning disabled.

Independent living. Almost all of the individuals interviewed still lived at home with their parents or guardians (88.9%). Those that did not reside in their parents= home lived in group homes (5.6%) or in their own home with support (5.6%). Although 81.3% of those who responded reported that they like where they lived, 72.2% also came up with answers to the question which asked what types of things were stopping them from living where they wanted to live.

Community Participation. All of the students who responded to this question (N=16), reported that they were involved in some type of community activity. Going out with friends and attending religious services were the two activities that were identified most frequently as activities in which exiters were involved.

General Outcomes and Predicting Variables

Independent living. Chi-square analysis revealed no significant relationship between primary disability and current residence (x^2 = 4.144, df = 6, p =.617). This is probably due to the fact that 88.9% of the sample were residing with their parents. Similarly, current living arrangement was not related to gender (x^2 = 1.880, df = 2, p = .407), class setting (x^2 = .450, df = 2, p = .799), year of exit (x^2 = 3.545, df = 2, p = .170), or perception of high school experience (x^2 = .1.296, df = 2, p = .523).

Post-secondary education. Chi-square analysis revealed that students labeled as BD, ED, and LD were more likely to continue their education than students labeled as EMD or TMD (x^2 = 13.56, df = 3, p = .004). Although expected frequencies were too low to obtain significant results, chi-square analysis indicated that students who rated their high school education as not useful in preparing them for post-secondary education were more likely to continue their education than those who rated high school as useful (x^2 = 5.57, df = 1, p = .018). Similarly, although cell sizes were too small to conduct a chi-square test of analysis, data indicated that students who received special education services in resource rooms were more likely to continue their education than their peers in self-contained classrooms (x^2= 10.578, df = 1, p = .001). No significant relationships were found between continuing education and gender (x^2= .977, df = 1, p = .323), or year of exit from high school.

Adult services. Chi-square analysis revealed that there were no significant relationships between utilizing adult service agencies and disability category (x^2 = 3.13, df = 3, p = .372), gender (x^2= .907, df = 1, p = .341), class setting (x^2= .033, df = 1, p = .850), and year of exit (x^2= 10.58, df = 5, p = .06).

Employment Outcomes and Predicting Variables

Chi-square analysis revealed that current employment status (as mentioned above, individuals were only considered employed if they had a paid position in the community at the time of the study) was significantly related to on-campus work while in high school (x^2= 4.114, df = 1, p = .043). Those individuals who worked on campus were less likely to be employed after leaving high school. Chi-square analysis also revealed that employment was not significantly related to disability category (x^2= 4.114, df = 3, p = .249), gender (x^2= .064, df = 1, p = .800), perception of high school experience (x^2= .486, df = 1, p = .486), or class setting (x^2 = .25714, df = 1, p = .61209). Similarly, current employment was not related to year of exit (x^2= 4.982, df = 5, p = .418), work incentives during high school work experience (x^2= 2.822, df = 1, p = .093), or job coaching during high school work experience (x^2= .643, df = 1, p = .423). In addition, analysis of variance revealed no relationship between years in STEP and current employment status (F = 1.240, df = 2, 15, 17, p = .317).

Wages and Predictors.

Linear regression revealed that hourly wages were significantly related to disability category (R = .853, r^2 = .727, F = 6.668, p = .007, B = .727). When one outlier was removed from the BD/ED category (the individual who earned an average of $23.00 per hour), this variable accounted for 61.8% of the variance, and regression revealed that EMD and LD labels were associated with higher wages than other disability categories (R = .853, r^2 = .727, F = 6.668, p = .003, B = 3.032, p = .029, B = 2.732, respectively). Analysis also indicated that males earned more than females (R = .853, r^2 = .727, F = 6.668, p = .015, B = -1.860). In addition, linear regression suggested that the number of years an individual was involved in the STEP program was significantly related to the amount of money earned after exiting high school.

Years in STEP was negatively correlated with wages earned ($R = .712$, $r^2 = .507$, $F = 1.469$, $p = .013$, $B = -3.853$) (i.e., the more years a student spent in the STEP program, the less money they made after high school). Finally, linear regression revealed that receiving job coaching while in high school was also negatively correlated with the amount of money earned after exiting high school ($R = .839$, $r^2 = .704$, $F = 8.725$, $p = .014$, $B = -1.966$).

Table 1

Summary of General Outcomes and Predictors

Outcome	chi-square	df	p
Employment^a			
Disability Category	4.114	3	.249
Gender	.064	1	.800
Perception of High School	.486	1	.486
Class Setting	.257	1	.612
Exit Date	4.982	5	.418
Work Incentives	2.822	1	.093
Job Coaching	.643	1	.423
On Campus Work	4.114	1	.043*

Table 1 (continued)

Outcome	chi-square	df	p
Postsecondary Education[b]			
Disability Category	13.56	3	.004
Gender	.977	1	.323
Perception of High School	5.565	1	.018*
Class Setting	10.578	1	.001*
Independent Living[c]			
Disability Category	4.144	6	.617
Gender	1.880	2	.407
Perception of High School	1.296	2	.582
Class Setting	.450	2	.799
Exit Date	3.545	2	.170

* Caution should be used when interpreting these results due to small cell size.
[a]N = 18; [b]N = 17; [c]N = 18.

Discussion

The data collected from this study indicate that of those former STEP students who were interviewed, most have had at least one job since graduating high school and 77.8% of the group had a job at the time of the interview. Most exiters had not pursued post-secondary education (82.4%) and were still living at home with their parents or guardians (88.9%). In addition, former STEP students were involved in their communities and were accessing some adult services. Although the employment status results are higher than those of previous studies of exiters with disabilities, the majority of the findings support those of previous investigations on post-school outcomes for students with disabilities (Blackorby & Wagner, 1996; Haring & Lovett, 1990; Mithaug et al, 1985). They also support previous findings that suggest average rates of independent living and education for youth with disabilities lag behind those of their peers without disabilities (Blackorby & Wagner, 1996; Marder & D=Amico, 1992).

Employment

Results from this study indicate that the group of exiters interviewed have a higher employment rate than exiters with disabilities from previous studies. Almost 78% of STEP exiters were employed as compared to 57.6% (Blackorby & Wagner, 1996), 43% (Hasazi, Gordon, Roe, Finck, et al., 1985), and 12% (Wehman et al., 1985) of similar youth. Other studies also reported lower employment rates than those found in the current study for students with disabilities (Hasazi et al., 1985; Mithaug et al., 1985). In addition, the employment rate for exiters of STEP is higher than the employment rate reported for individuals without disabilities (69%) (Blackorby & Wagner, 1996). These numbers could be the result of a bias in sampling.

Findings from this study indicated a relationship between employment status and on-campus work during high school. Those students who worked on campus during high school were less likely to be employed after high school. These findings are somewhat similar to those of Hasazi, Gordon, Roe, Finck, et al. (1985). Although they did not find a significant difference in employment status for those who participated in a work experience program versus those who did not, they did find that "higher present wages were associated with having one or more vocational classes in high school and with having held a part-time outside job during high school" (p. 228). Perhaps on-campus work is not a close enough approximation of "real" work and therefore impedes later employment. Another possibility is that these results might reflect the expectations of the program due to other factors, e.g., severity of disability.

Several findings of interest concerning hourly wages were also suggested by the data. Although wages seemed to be significantly related to disability category (EMD and LD p=.007), it is important to note that individuals from these two categories make up the majority of the sample and may have skewed the results. In addition, males seemed to earn more money than females after high school which supports current trends. Blackorby and Wagner (1996) found that 44.3% of males and only 23.0% of females made more than $6.00 per hour. They also noted that "their wages were comparable to those earned by noncollege youth of similar ages in the general population" (p. 405). Several other studies which did not note differences in wages between males and females, did report similar findings that males had higher rates of employment than females after leaving high school (Hasazi, Gordon, Roe, Finck et al., 1985; Hasazi et al., 1985).

Of particular interest and more related to programmatic characteristics was that having a job coach in high school and more years spent in the STEP program seemed to be negatively correlated with wages after high school (p=.014, B=-1.966 and p=.013, B=-3.853). These findings seem to support those of Hasazi, Gordon, Roe, Finck, et al. (1985) who reported that "work experience participation in high school was significantly associated with lower wages..." (p. 228). Although "work experience program" is not clearly defined, they did indicate that those individuals who had work experience outside of high school were more likely to have higher wages after high school. These findings may suggest that more years in STEP and having a job coach may not be beneficial to students once they leave school.

In general, former students reported being satisfied with their jobs (88.9%) although exiters appeared to have an average of 2.5 jobs since high school and quitting (48%) and being terminated (20%) were the most frequently mentioned reasons for leaving a job. In addition, it is important to note that the majority of the respondents (72.2%) graduated between 1993 and 1995 and therefore had not been out of school for more than 3 years at the time of the study, indicating a fairly high turnover rate in employment. Although this trend is cause for concern, it appears to be somewhat typical of the population at large. Hashimoto and Miller (1996) conducted a study investigating the labor trends of individuals without disabilities who were not "college-bound" during their first 8 to 14 years out of school. They reported that most youth found their first job within 6 months of high school exit, but were terminated from or quit their jobs during their first 3 years out of school. In addition, these authors found that "early turnover experiences, along with the time needed to find the first full-time job, appeared to have some impact on later earnings and unemployment experiences" (p. 18). These findings re-emphasize the need for effective school-to-work transitions for all students, regardless of whether or not they have a disability.

Exiters' reported wages averaged $4.98 per hour (excluding those who were not paid and the individual who averaged $23.00 per hour). This average wage is only slightly above the minimum wage. In addition, less then one-half (35.7%) of the exiters received medical insurance or other benefits. A related finding was that 50% of the respondents reported currently receiving Social Security or Supplemental Income while only 6.3% received DORS services at the time of the study. It is possible that individuals are reluctant to lose their

Social Security benefits or, conversely, that they have been unable to find a job that will enable them to relinquish these benefits.

General Outcomes

Results indicated that several factors might be related to the general post-school outcomes of the exiters surveyed in this study. Of the predictors that were analyzed, disability category, class setting, and perception of high school were found to have relationships to post-secondary education. Findings suggested that individuals who were labeled as behaviorally/emotionally disordered or learning disabled were more likely to continue their education than individuals labeled as Educable or trainable mentally handicapped. Findings from Blackorby and Wagner (1996) also indicated that individuals who had learning disabilities or emotional disorders were more likely to continue their education than individuals with mental retardation, although individuals with speech, visual, or hearing impairments were among the most likely to attend post-secondary schools. In addition, students who were in resource rooms as opposed to self-contained classrooms appeared more likely to continue their educations. This finding may be related to disability category due to the fact that students with more severe disabilities (EMD and TMD) are placed in self-contained settings while students with less severe disabilities are usually placed in less restrictive settings. (Three of the 4 students with BD/ED or LD received special services in resource rooms, while only 1 was in a self-contained classroom.) Data also suggested that students who reported that high school did not help prepare them to continue their education were more likely to have pursued post-secondary education than those individuals who reported that school did prepare them to continue their education. One possible explanation for this finding might be that as a result of exposure to post-secondary education, students felt that their high school did not adequately prepare them for education at the college level.

In their comparative study, Marder and D'Amico (1992) accounted for demographic differences such as race, gender, and head-of-household-educational level and still found significant differences between former students, with and without disabilities, who had been out of school for 2 years. They found that high school exiters with disabilities were less likely to continue their education than exiters without disabilities (22.5% of exiters with disabilities as opposed to 52.1% of exiters without disabilities). Blackorby and Wagner (1996) reported similar results that 3 to 5 years out of school only 27% of youth with disabilities versus 68% of youth without disabilities had attended some type of postsecondary school. Findings from the current study indicated that only 17.6% of the respondents had continued their education. These results support those of previous findings, but it is also important to note that the purpose of the STEP program is not preparation for postsecondary education. In fact, it is extremely difficult to maintain an academic course of study and pursue the STEP vocational program simultaneously.

Although no predictors were associated with independent living status, general findings support those of earlier studies. Approximately 90% of the exiters surveyed in this study were still living at home as compared to 63% in Blackorby & Wagner (1996), 82% in Hasazi, Gordon, Roe, Finck, et al. (1985), and 64% in Mithaug et al. (1985). In fact, findings from the current study indicate a lower rate of independent living than previously found. Further comparison illustrates that youth from this study lag far behind youth without disabilities as reported by Blackorby and Wagner (1996) (60% living independently 3 to 5 years out of school), and by Marder and D'Amico (1992) (13% of youth with disabilities living independently versus 29% of youth without disabilities).

Many variables were analyzed in this study and were found to be nonsignificant in their relationship to outcomes. This may be a result of the small sample size or the fact that the participants were unable to be matched based on year of exit and disability category. Although this study was limited by its sample size, it was able to provide administrators of the Secondary Transitional Experience Program with new information about how their students are faring after leaving high school. Not only did it provide information concerning outcomes, but it allowed those individuals most affected by this program to voice their opinions and perceptions. This program was of particular interest because it was a collaborative transition program involving both the Departments of Special Education and Rehabilitation Services. This type of collaborative program seems to follow the direction that is being promoted by current research. The STEP program affords early interaction between the Departments of Rehabilitation and Special Education during a student=s high school experience which, as suggested by previous research, is one effective way of improving collaboration and therefore improving the transition process in general (Hanley-Maxwell & Szymanski, 1992). The STEP program also attempts to promote paid, integrated employment for students while they are in high school. This factor has also been suggested to be a critical variable in facilitating the fluid transition from school to work for students with disabilities (Hasazi et al., 1985; Mithaug et al, 1985; Wehman et al, 1985).

The Secondary Transitional Experience Program certainly addresses the issues of collaboration between schools and vocational rehabilitation and the importance of real work experience in high school in order to promote post-school success for students with disabilities. Results of this study indicate that students from this program are working, but most are working just above minimum wage, have few benefits, and are working in entry-level positions. In addition, most of the students still live at home, many still receive social security benefits, and few students choose to continue their education. It seems that collaborative programs such as STEP have much potential and could greatly affect the future outcomes of students who participate in such programs. It also seems crucial that continued follow-up and follow-along studies continue in order to determine student success and how program characteristics could affect such success. Finally, it appears that it may be time for programs such as this to re-assess their definition of post-school employment to take into account additional education, wages, preferences, and additional benefits associated with "real" work.

Implications for Future Research

Although it is difficult to conduct follow-up studies of this nature, it is imperative that they continue to be performed. They are our only tool to measure how effective our school and rehabilitation programs are in promoting positive post-school outcomes for youth with (and without) disabilities. Future research surveying students, parents, and professionals would provide added insight into the effectiveness of these programs. In addition, comparative analyses between students who are involved in various types of work-study programs within special and regular education would be useful. In order to do these types of evaluations, it is of great importance that schools and rehabilitation agencies pool their resources and information in order to locate and gather information about their students and to create new curricula that reflect the knowledge gained from these evaluations.

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CHAPTER VII

THE SCHOOL-TO-WORK TRANSITION: IMPORTANCE OF SOCIAL SKILLS FOR SUCCESSFUL EMPLOYMENT

Kristin V. Sachs and John S. Trach

Abstract: *Thirty hiring professionals representing a range of businesses were interviewed to assess the importance of specific social skills for job success. Employers ranked the social skills categorized as "interpersonal," "listening," and "personal qualities" as most important to job success. These skills were ranked significantly higher than "information," "speaking," and "resource utilization." The professionals' ranking of the social skills differed significantly by gender. The professionals' ranking of the social skills also differed when the specific social skills were ranked abstractly compared to when they were rated in the context of hypothetical scenarios. Employers' suggestions to improve the social skills indicated a preference for short-term training sessions.*

Successful and meaningful employment is a primary goal in today's society. For most, generic work-related skills are learned indirectly through environment, expectations, and experiences. However, this is not always the case for individuals with disabilities who have been protected from experiencing independence, adventure, risk, and failure. Many persons with disabilities have been sheltered from stressful demands and honest feedback, which in turn has deprived them of opportunities to fully develop coping and social skills (Deshler, Ellis, & Lenz, 1996). A more effective way of providing individuals with disabilities the social skills necessary to achieve success at work must be provided.

Instructors involved with social skills training must decide which social skills are essential for job success. Instructors can gather information about those social skills valued in different environments. Multiple forms of assessment, such as observations, interviews, checklists, and inventories can be important in developing and maintaining a social skills program (Goldstein, 1988; McEvoy, Davis, & Reichle, 1993; Sabornie, 1991). However, many times, the social skills that are taught may not pertain to the skills the individuals will need to live independently and have a career, but rather are related to the social skills the instructor values in that particular setting.

Minskoff and Demoss (1994) surveyed speech/language pathologists and employers to determine which social skills were essential, helpful, or not important for employment. In this study speech/language pathologists rated cooperation, problem-solving, civility, and verbal communication highest, while employers rated accepting criticism, following directions, asking for information or assistance, and accepting supervision as more important. Such a discrepancy in what skills are valued could be a potential reason students are not receiving the social skills training they need. Fabian, Luecking, and Tilson (1995) found that the perspectives of the employer and rehabilitation counselor were opposites. They questioned whether there is adequate coordination between these two groups.

As more individuals with disabilities enter competitive employment, it has become increasingly necessary to identify social behaviors that are valued in those settings. The purpose of this study was to identify the social skills valued in large corporate offices. Hiring professionals working in the large corporations were surveyed using an instrument developed and based on a combination of business and social service research.

The study addressed the following research questions:

- What social skills are rated by employers as most important to job success in a corporate setting?
- To what extent do employers believe these same social skills will affect job success, when these social skills are presented to the employers in a scenario in which an employee is having a problem.
- What accommodations are employers willing to make to address social skill deficits?

Chadsey-Rusch (1992) defines social skills as "goal oriented, rule governed learned behaviors that are situation specific and vary according to social context, involving both observable and nonobservable cognitive and affective elements that assist in eliciting positive or neutral responses, avoiding negative responses from others" (p. 406). Farlow and Snell (1991) state that in order to participate effectively in a social interaction, an individual must be able to complete certain steps: (a) discriminate the appropriate social behavior depending on the situation, (b) determine which skills are appropriate, (c) perform the skills, and (d) perceive the verbal and nonverbal cues received from others accurately.

Research indicates that individuals with disabilities have lost their jobs due to a lack of social competencies (Greenspan & Schoultz, 1981; Hanley-Maxwell, 1989; Hanley-Maxwell, Rusch, Chadsey-Rusch, & Renzaglia, 1986). Baumgart and Anderson (1987) reported that several behaviors were related to job failure for individuals with disabilities: (a) noncompliance with supervisors, (b) tardiness, (c) inappropriate behaviors/verbal responses, (d) poor relations with peers and supervisors, and (e) not following directions. Cartledge (1989) categorized social skill deficits resulting in job failure for individuals with learning disabilities as: (a) task-related, (b) social communication, and (c) decision making. The task- related social skills included following directions and completing tasks. The social communication behaviors consisted of conversation, listening, and interpersonal relations. Decision making was cited as perceiving a personal or social situation and acting wisely.

Social skills vital to job success can be identified by directly asking employers to assess which skills they consider to be the most important in their work environment. The Secondary Transition Employment Project (STEP) in Idaho defined four categories of social skills (Baumgart & Anderson, 1987): social perception, social problem solving, generic work-related, and job specific interpersonal skills. The generic work-related and job specific social skills were those that were specific to the workplace. Employers valued skills necessary to conform to the social and behavior norms of society, such as following directions, flexibility, trustworthiness, and self-control. The skills identified by employers as most critical were honesty, accepting instructions, good hygiene, self-control, dealing with anger, and explaining a problem. They identified noncompliance, tardiness/poor attendance, poor relations, and not listening as reasons for job failure. The research seems to indicate that social skill deficits, whether task-related, social communication, or decision making, all can contribute to job failure.

Salzberg, Agran, and Lignugaris/Kraft (1986) found that social skills tied to productivity to be the most important to supervisors. The skills identified as important were to be punctual, respond to job emergencies, follow directions, help coworkers, provide information, and ask for assistance if needed. Rubin (1993) found that following directions and providing assistance to coworkers were social skills perceived as important for job success because these skills are directly tied to worker production.

Although there has been a significant amount of research conducted to determine the social skills valued by businesses as important to job success, this research involves employers representing the "typical" jobs individuals with disabilities hold, such as janitorial service, food service, or light industry (Baumgart & Anderson, 1987; Chadsey-Rusch & Gonzalez, 1988; Chadsey-Rusch, et al., 1989; Parent, et al., 1992; Rusch, et al., 1988; & Salzberg, et al., 1986). Since individuals with disabilities can hold jobs in other areas of the workforce, it is imperative to find out what social skills are valued in work environments that have not typically hired individuals with disabilities. The social skills important in a fast food restaurant may differ from those in a large corporation or business office.

A review of the research suggested that the researchers have rarely gathered preliminary information from business sources, and have instead gathered information from other professionals in the social service field (e.g., Baumgart & Anderson, 1987; Parent, et al., 1992; & Salzberg, et al., 1986). In addition to identifying the social skills valued by employers, it is important to validate them by researching business literature. Recently, many self-help books directed at business men and women have been published, such as The 7 Habits of Highly Effective People (Covey, 1989). In this book, the "7 habits" include principles of leadership, management, communication, and cooperation, which are all, Covey claims, important for leading a successful life. During the National Education Summit, business leaders and United States Governors determined that, in order to strengthen the workforce in the United States, individuals need to leave school with more than just basic skill knowledge. Individuals must be able to analyze problems and propose solutions, communicate and work collaboratively with others, and manage their resources such as time and materials (National Alliance of Business, 1996).

According to the *Wall Street Journal* (Narisetti, 1995), “thousands of people are being turned down for factory work by companies that are actively recruiting,” because those applicants lack the skills, advanced math, communication ability, and computer knowledge required in manufacturing (p. 1). Due to the apparent gap between school and work, the Secretary of Labor’s Commission on Achieving Necessary Skills (SCANS) (1990) developed standards representing the skills necessary to move from school to employment successfully (Smith, 1995). The standards included “foundation skills” (basic reading, writing, and math; thinking skills; and personal qualities) and “workplace skills” (technology, systems, information, interpersonal relations, and use of resources).

The National Alliance of Business (1994) surveyed small businesses in the Dallas/Fort Worth area that employed less than 500 workers. The 673 companies that responded to the survey rated entry level worker skills by importance and rated the degree to which it was a problem finding workers with the stated skill. The results showed that listening skills and personal qualities were rated as fairly or very important by 97% of the respondents and that 68% of the respondents reported that they sometimes or usually have a problem finding qualified applicants. A high percentage of respondents ranked other social skills as fairly or very important: interpersonal skills (94%), resource management (87%), speaking skills (85%), and information skills (76%). A majority of the respondents reported they sometimes or usually have difficulty finding applicants with these social skills.

Although some professionals working with individuals with disabilities have looked at the social behaviors valued by business professionals, the research still shows that individuals with disabilities may not be receiving social skill instruction valued in business settings (Elksnin & Elksnin, 1991). Therefore, it is necessary to continue to learn the expectations and values of the business world to better prepare students for those future environments. Since these future environments could include any variety of business, it is essential to determine social skills necessary for job success in a variety of corporate offices.

Method

Participants

Surveys were completed by the person doing the majority of the hiring for the corporation (e.g., office managers, corporate recruiters, human resource managers, and employment managers). These hiring professionals were 40% male (12/30) and 60% female (18/30). The criteria for selecting businesses included: (a) corporate headquarters office, (b) located in Champaign or DuPage County, Illinois, and (c) corporation employing 500 or more employees. The companies surveyed were 36% private, 30% subsidiaries, 17% public, and 17% divisions. The companies represented a wide variety of industries (e.g., apparel, construction, printing, electronic, transportation, etc.).

Procedures

Initially, 77 corporations which met all three criteria were identified in Ward's Business Directory of U.S. Private and Public Companies (1995). These companies were contacted by phone to set up an interview to complete the survey either face-to-face or by phone. Thirty surveys were completed.

Instrument

The instrument used in this study was adapted from a survey of businesses in the Dallas/Fort Worth area conducted by the National Alliance of Business (1994). The items selected for the current study were those social skills identified as important by the National

Alliance of Business survey. These skills were also identified in other research literature as important to employers (Baumgart & Anderson, 1987; Cartledge, 1989; Chadsey-Rusch & Gonzalez, 1988; Chadsey-Rusch, et al., 1989; Lignugaris-Kraft, et al., 1988; Minskoff & Demoss, 1994; National Alliance of Business, 1994; Rusch, et al., 1988; & Salzberg, et al., 1986). The targeted social skills were listening, interpersonal, personal qualities, speaking, information, and resource utilization.

Rank order social skills. The targeted social skills were defined on the survey and the respondent was asked to rank the six skills in order of importance. The most important skill was number "6," next important was "5," and so on to "1"; no two skills could have the same ranking.

Rating of social skills in scenarios. Next, the respondent read a scenario involving a hypothetical employee and rated the individual on the level of success she or he would achieve in the respondent's corporation. The scenarios were developed in part from real descriptions of working adults with disabilities who have some social skill deficits (Trach, Lambert, & Donnell, in press). The levels of success were rated as follows: (1) not at all successful (e.g., losing the job and/or the employer is extremely unsatisfied), (2) not very successful (e.g., intervention necessary to remain employed), (3) fairly successful (e.g., intervention not imperative), (4) very successful (e.g., maintaining employment and/or the employer is satisfied with the employee). If the respondent rated a scenario a "1" or a "2," he or she was asked to suggest possible strategies to alleviate the problem.

Analysis

A descriptive analysis of the number of responses from each section of the survey according to the social skills targeted was conducted along with percentages, means, and standard deviations. An analysis of variance was conducted on the mean rankings of each category of social skill and by rank order of the social skills by gender of employer.

Results

Rank order of social skills

Interpersonal, listening, and personal qualities were ranked by the hiring professionals as most important to job success ($\underline{M} = 4.33$; $\underline{M} = 4.27$; $\underline{M} = 4.10$, respectively, see Table 1). Significant differences between the social skill rankings were found, $\underline{F}(5) = 9.466$, $p < .05$. An analysis of variance by gender identified significant difference in the rankings for the social skills resource utilization, $\underline{F}(1) = 6.400$, $p < .05$, and interpersonal, $\underline{F}(1) = 11.805$, $p < .05$ (see Table 2). Overall, males valued resource utilization more than females ($\underline{M} = 3.00$; $\underline{M} = 1.67$, respectively), although they both ranked it as least important as compared to the other social skills. Females valued interpersonal skills more than any other social skill.

Rating of social skills in scenarios

Overall, the ratings of the scenarios corresponded to the social skills ranked as important for job success for 16 out of the 24 scenarios. Eight of the scenarios did not correspond with the initial rankings. For example, since interpersonal skills, listening, and personal qualities were ranked as most important to job success, those individuals in the scenarios who lacked such qualities should be rated as unsuccessful. However, this was not the case. The individuals in the scenarios shown to be unsuccessful by the majority of employers were those with difficulties in resource utilization, interpersonal, and information skills (see Table 3).

Table 1

Rank Order of Social Skills

	Frequency	Percentage	Mean
Interpersonal (SD = 1.40)			4.33
Most important	21	70%	
Least important	9	30%	
Listening (SD = 1.53)			4.27
Most important	22	73%	
Least important	8	27%	
Personal Qualities (SD = 1.73)			4.10
Most important	18	60%	
Least important	12	40%	
Speaking (SD = 1.40)			3.10
Most important	11	37%	
Least important	19	63%	
Information (SD = 1.62)			3.00
Most important	11	37%	
Least important	19	63%	
Resource Utilization (SD = 1.54)			2.20
Most important	7	23%	
Least important	23	77%	

Most important = rank of 4, 5, or 6; Least important = rank of 1, 2, or 3

Table 2

Analysis of Variance for Ranking of Social Skills by Respondent Gender

	Female (n = 18)		Male (n = 12)		
	M	SD	M	SD	p
Interpersonal	4.94	.87	3.42	1.56	.002*
Listening	4.44	1.58	4.00	1.48	.445
Personal Qualities	4.33	1.61	3.75	1.91	.375
Speaking	3.06	.99	3.17	1.89	.835
Information	2.56	1.38	3.67	1.78	.064
Resource Utilization	1.67	1.08	3.00	1.81	.017*

*$p < .05$

Employer written suggestions. If the employer rated the employee in the scenario as "not at all successful" or " not very successful," he or she was asked to suggest possible solutions to solve the problem. The most frequently suggested solution was to work with the individual by (a) extending training, (b) sending the individual to a workshop, or (c) sending the individual to a seminar (see Table 4). In more serious cases, for which employers stated that some intervention would need to take place in order for the individual to be successful, the employers had suggestions and potential solutions to alleviate the problem 85% of the time. However, the other 15% of the time, the employer stated that the individual would have to find another job. While termination was suggested for scenarios representing each of the six social skills, it most often involved the skills of resource utilization, interpersonal, and personal qualities.

Table 3

Judgements of Success or Lack of Success Across Four Scenarios Represented by Each of the Six Social Skills (n=24)

	Frequency (n = 120)	Percentage
Interpersonal		
Unsuccessful	82	68%
Successful	38	32%
Information		
Unsuccessful	75	63%
Successful	45	37%
Resource Utilization		
Unsuccessful	75	63%
Successful	45	37%
Personal Qualities		
Unsuccessful	56	47%
Successful	64	53%
Listening		
Unsuccessful	52	43%
Successful	68	57%
Speaking		
Unsuccessful	25	21%
Successful	95	79%

Table 4

Employer Suggestions to Alleviate Social Skill Problems Presented by Employees in the Scenarios

	Frequency	Percentage
	Suggestions (n = 305)	
Training/Seminars	118	39%
Supervisors Reminders/Feedback/Counseling	52	17%
Find Another Job/Will Not Succeed	47	15%
Encouragement/Praise/Build Self-Confidence	31	10%
EAP (Employee Assistance Program)	15	5%
Discipline	12	4%
Develop a Plan and Monitor	11	4%
Written Directions/Checklists	7	2%
Transfer to Another Position	5	2%
Work with Coworkers	3	1%
Try Alternatives	2	1%
Time Off	1	<1%

Discussion

Social Skills Most Valued for Job Success

The hiring professionals were asked to rank six social skills from most to least important. Interpersonal and listening were ranked significantly more important than speaking, information, and resource utilization by all employers. The standard deviations for the six social skills remained consistent, ranging from 1.40 to 1.73; therefore, the mean rank order appears to be fairly accurate. As the employers completed this part of the survey, the common comment was "this is difficult because all of these social skills are important." Yet when they did rank order them, the hiring professionals surveyed seemed to agree about the order of the three most important social skills. Rusch, et al. (1988) reported that 90% of job supervisors surveyed in a study identified interpersonal skills as important.

Resource utilization was the only skill significantly lower than the three most important, which were interpersonal, listening, and personal qualities. This seemed to indicate a consensus on the level of importance of resource utilization. Listening (following directions) was also identified by Chadsey-Rusch, et al. (1988) as one of the most frequently observed interactions in workplaces which may account for its perceived importance in this study.

The social skills valued most by employers were not as clear when the results were differentiated by gender. Female respondents ranked the six social skills consistent with the overall results of the hiring professionals rankings. However, the male respondents' rank order from most to least important differed from that of the overall results and the females. For example, females and the whole group ranked interpersonal, listening, and personal qualities as most important to job success, in that order. In contrast, the males surveyed ranked listening most important to job success, followed by personal qualities, and information. The mean and standard deviation scores involving interpersonal skills differed greatly for the female and male respondents. The difference between means was 1.52, and the standard deviation for males was almost double that for females. For the social skill of speaking, both females and males agreed on the mean within a few points (M =3.06 and M = 3.17, respectively), but the variability for the males (SD = 1.89) was twice that of the females (SD = .99) indicating that the males were in less agreement within their own group. On the other four skills the two genders differed, but the differences in mean rank scores was a smaller range, within 1.00. Both males and females agreed that resource utilization is least important to job success, but the mean rankings differed greatly by gender (M =3.00 and M = 1.67, respectively). Generally, there was less consensus among the male hiring professionals surveyed concerning which social skills would be most important to job success.

The gender of the boss or supervisor may be important to consider when finding employment for individuals with disabilities. If interpersonal qualities are as important to females as this study suggests, then that should be included and considered when determining a job match. Such information for job development and job match strategies could be invaluable to persons with disabilities. Rather than utilizing a standard approach to employment practices, being sensitive to gender could enhance successful employment opportunities.

The Effect of Social Skill Problems in Specific Situations

The hiring professionals rated the importance of specific social skills for job success in the context of scenarios. The level of correspondence between these ratings and the rankings for importance was compared. Generally, the respondents remained consistent with overall rankings for importance when rating the importance of speaking and interpersonal skills for job success. For example, when ranking the six social skills, speaking was one of the least important skills for job success (M = 3.10). In the scenarios, the individuals who had problems pertaining to speaking were rated by 79% of the employers to still be successful in their corporation. This rating of success corresponds to the low ranking for importance. In another example, interpersonal skills were ranked as most important to job success (M=4.33). The hypothetical employees in the scenarios who lacked interpersonal skills were rated by 68% of the respondents as being unsuccessful in their corporation. Again, these rankings and ratings appeared to be consistent.

The other four social skills identified in the remaining scenarios were not consistent with the previous overall ranking of those same social skills. Both resource utilization and information social skills deficits were rated by 63% of the employers as affecting the hypothetical employee's job success. Although resource utilization and information were ranked as least important to job success, it seems that when put into context, they had an impact on job success. Within a context, the individuals lacking listening skills and personal qualities were rated as having a fifty percent chance of being successful or unsuccessful, even though these were skills ranked as most important to job success. Although resource utilizations and information were skills ranked as least important to job success, within the context of the scenario the employers (63%) rated the individual as being unsuccessful in the job. Speaking and interpersonal skills were the only two social skills that agreed with the overall mean rank order.

These differences might be explained by the effect of the context provided by the scenarios. The difficulties mentioned in the scenarios were the inability to stay organized, time management and distraction, and not taking initiative. Although the employers completing the survey were told verbally, and the scenario survey instructions in bold type read, "In all of the cases the individual CAN do the job, but may have some social skill deficit," the issue of task completion may have affected the rating. Similarly, Salzberg, et al. (1986) found that social skills tied to productivity to be most important to supervisors. The scenarios were checked for reliability for the social skills each represented, but the respondent's interpretation when rating the hypothetical employees job success may have varied. Having employers rank order a listing of social skills does not take into consideration situational factors. Although certain social skills were ranked out of context as significantly more important than others, when illustrated in the scenarios, this was not the case.

This study suggests that in order to get a more accurate measure of what social skills are valued by employers, it may be important to put those skills within a context. Assessing social skills through listing and rank orderings out of context may yield different information than what really affects employment. Providing a context when questioning employers should assist greatly with evaluating employment opportunities and gaining knowledge about what is truly valued in the work setting.

Employer Suggestions to Social Skill Problems

In the cases where management intervention was necessary, employers most frequently suggested to send the hypothetical employee to additional training or a seminar (e.g., time management seminar, Dale Carnegie training, etc.). Training classes and seminars were suggested 39% of the time. The other company-established suggestion (given 5% of the time) was to send the individual to the Employee Assistance Program (EAP). Thus, those already established programs (e.g., training/seminars and EAP) within the corporation were suggested 44% of the time (133 out of 305 suggestions) as ways to assist employees with the identified social skill problems. The concern is that the majority of employer suggestions were one time solutions (i.e., training or seminars), rather than long-term assistance. For individuals with disabilities, it may take more than a single seminar to promote job success.

While these established programs may be good sources of information, they most likely will not assist those persons for whom supported employment was intended.

In contrast, 41% of the suggestions for solutions related to personal, individualized interaction between the employee and management or others (e.g., supervisor feedback and reminders, encouragement/praise, development of a plan followed by monitoring, checklists/written directions, transferal to another position, work with coworkers, etc.).

Comparatively, the large number of suggestions for training and seminars indicated a preference over more personalized interventions. Not one personalized intervention was identified often. The business world seems to value professional training and seminars for groups of individuals rather than specific training designed to meet one employee's needs. When preparing individuals with disabilities for employment there may be an unrealistic expectation of what employers are willing to do. This should guide job developers when negotiating employment opportunities and in preparing persons for employment. From another perspective, the identification and development of more personalized and individualized interventions might be a service that employment consultants can offer businesses.

In this study the respondents were asked to determine possible solutions to alleviate the problem presented in the scenarios. Although 85% of the hiring professionals' suggestions were ways to assist the employee, 15% of the suggestions were to fire the employee. In reality, this number may increase because the focus may not be to develop other solutions. Firing the employee was given as a solution on scenarios representing each of the six social skills, but it was most frequently suggested for listening and interpersonal skills. This is important to note because it emphasizes the need to equip individuals with the social skills needed to be successful on the job.

Summary

There are two considerations that must be made in utilizing this research. First, this study was conducted with a small sample size in a specific geographic region. Generalization should be done conservatively. Although it was a small sample size, there were a wide variety of businesses represented. Second, the survey used was not an established survey with reliability and validity statistics, which makes it specific to this study. Despite these potential limitations, this research provided important information. Particularly important are the gender differences in social skill ranking; the business approach to solutions for employee problems; and the need to provide context when questioning employers about what they consider important regarding the social skills of their employees.

The results of this survey suggest some of the social skills valued by one hiring professional within each of the 30 different corporations. For future research it may be helpful to interview more than one individual in the corporation to assess agreement on social skills across the work setting (e.g., the hiring professional, a supervisor, and an entry level employee). Interpersonal and listening skills seemed to rank above the other skills as important to job success when out of context. However, that ranking did not hold true in the scenarios. What explains the difference between the rankings and the ratings for certain social skills? Would interpersonal and listening skills remain ranked as most important if the sample size were increased? These are additional questions that need to be addressed.

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CHAPTER VIII

IMPACT OF COOPERATIVE EDUCATION ON CAREER DEVELOPMENT FOR COMMUNITY COLLEGE STUDENTS WITH AND WITHOUT DISABILITIES[1]

John S. Trach and Jocelyn Y. Harney

Abstract: *This study compared aspects of self-esteem and career development of four groups of community college students, defined by disability status and cooperative educational experience using the* Student Developmental Task and Lifestyle Inventory *(Winston & Miller, 1987). No significant differences were found across the four groups on seven of eight subtasks. However, there was a significant main effect defined by co-op experience. Students with and without disabilities who had participated in a co-op experience were better at establishing and clarifying a sense of purpose, career planning, and lifestyle planning than students who had no co-op experiences. Results indicate that disability alone is not a determining factor of successful career development and that co-op work experience had a positive impact on career development for students regardless of disability status.*

At a most basic and logical level, training students to work in business and industry must have both instructional and practical components. Consequently, access to this type of training would not seem to be determined by disability. Community colleges provide such training and experience through cooperative education (co-op) programs. According to the National School-to-Work Office (1996):

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> Cooperative education is a structured method of instruction whereby students alternate or coordinate their high school or postsecondary studies with a job in a field related to their academic or occupational objectives. Students and participating businesses develop written training and evaluation plans to guide instruction, and students receive course credit for both their classroom and work experiences. Credit hours and intensity of placements often vary with the course of study. (p. 20)

Co-op has also been defined as "a unique plan of educational enrichment designed to enhance self-realization by integrating classroom study with planned and supervised experience in educational, vocational or cultural learning situations outside of the formal classroom environment" (Woolridge, 1987).

Many programs of postsecondary study including health professions, education, social work, communications, and business already routinely require their students to have supervised experience in related work settings. Depending upon the discipline of study, these experiences may be called co-op, internship, externship, clinical practice, practicum, field experience, or student teaching (Heinemann, DeFalco, & Smelkinson, 1992). While co-op programs vary by daily time commitment, compensation, and duration all are grounded in the belief that concurrent and related work or field experience enriches the learning process because students apply concepts and skills taught in the classroom to the work situation, which in turn reinforces classroom learning (Stern, Hopkins, McMillion, & Cagampang, 1992). According to Heinemann et al. (1992), students who participate in a co-op placement gain skills related to three types of learning objectives. The first involves academic objectives which connect theory to practice and develops and strengthens cognitive skills such as problem solving, decision making, critical thinking, and analysis. The second involves career learning objectives which include determining realistic career options through career testing, developing job acquisition skills, strengthening career planning skills, and understanding the world of work. The third and final learning objective involves personal growth such as self-confidence, self-understanding, communication skills, personal and ethical values, social interpersonal skills, and a sense of professionalism. All three learning objectives are interrelated and viewed as critically important to successful employment in a highly competitive and global workforce.

Increasingly, a graduate's success may depend on practical work experience along with *real world* insight and understanding. Lindquist (1992, 1993), reporting on findings from the *47th Annual Survey of Personnel Practices and Policies*, indicated that employers demonstrated a significant shift in hiring practices. After graduation, half of the organizations surveyed hired their co-op or intern candidates as permanent full-time employees. Reasons cited included reduced recruitment expenses, opportunity to gain exposure to targeted groups, better hiring decisions, and higher retention rates. Taking into account this shift in hiring practices and the range of benefits provided by co-op programs, it appears that co-op work experiences are one means of strengthening the link between postsecondary education and successful employment experiences.

Benefits of Cooperative Education

Assessing the benefits of co-op participation through self-report or observational data was the focus of early research on co-op (Wilson & Lyons, 1961; Morse, 1967; Hagerty, 1968). More recent research has relied on experimental designs comparing co-op to non co-op programs and generally supporting its hypothesized benefits (Fletcher, 1989; Marks & Wohlford, 1971; Weinstein, 1980). Wilson (1974) found that co-op students appeared to make more informed career decisions, while Weinstein reported that co-op students demonstrated greater certainty about career choices. In addition, co-op students have been found to have greater autonomy and independence, social maturity, and interpersonal skills when compared with their non co-op peers (Fletcher; Marks & Wohlford; Wilson).

Mueller (1992) examined the effects of co-op by using a standardized instrument based on Chickering's (1969) theoretical model of student development, the Student Development Task Inventory (2nd, SDTI-2). The SDTI-2 measures three of Chickering's vectors of development: autonomy, sense of purpose, and mature interpersonal relationships. Mueller found that participating in a co-op program enhanced students' instrumental autonomy (i.e., the use of resources to obtain an end). Furthermore, co-op students demonstrated increased independence when compared to peers who did not participate in a co-op.

Laycock, Hermon, and Laetz (1992) found many factors associated with successful co-op experiences - talented students, employers who mentored students, jobs that enhanced learning, and faculty that helped students integrate classroom learning into their job experiences. They found that students with co-op experience possessed networks for finding future jobs and earned higher starting salaries than those students without co-op experience. Laycock et al. (1992) found that co-op employees experienced realistic employment expectations and good job matches, resulting in increased job survival and work effectiveness, work motivation, and job satisfaction.

Potential Benefits of Co-op Experience for Students with Disabilities

Most research on and practice with co-op has involved nondisabled populations. Even so, persons with disabilities continue to struggle to achieve success in the labor market and could likely benefit from the co-op model for placement and long-range career development. According to Vandergoot, Jacobsen, and Worrall (1979), career development can best be described as "a process that people use, over the course of their working lives, to receive desirable financial and nonmonetary rewards from society" (p. 7). Career development consists of productivity enrichment, productivity realization, and career enhancement which is not limited to a certain period of a person's life. Further, placement is defined as an event which indicates that a person "has accepted a job offer that yields appropriate career enhancement opportunities" (p. 7). It may be that each of these aspects is as relevant for persons with disabilities as it is for their nondisabled peers (Hershenson & Szymanski, 1992).

Federal policymakers, educators, and parents have long been concerned that access to elementary and secondary education is not sufficient to prepare individuals with disabilities for economic independence (Fairweather & Shaver, 1990). Several statewide follow-up studies have found youth with disabilities to have difficulties in securing and maintaining employment (Hasazi, Gordon, & Roe, 1985; Mithaug, Horiuchi, & Fanning, 1985; Wehman, Kregel, & Seyfarth, 1985). According to Heal, Copher, DeStefano, and Rusch (1989), only 25% to 50% of adults with disabilities in the United States are employed. In another study, Kemp (1990) noted that 58% of all men and 80% of all women with disabilities are unemployed. Kemp goes on to state that if two-thirds of Americans with disabilities remain unemployed, they will continue their economic dependence, costing American taxpayers over $160 billion dollars a year for benefits most recipients would willingly trade for paid wages.

These problems may be further intensified by a tight and competitive labor market facing all graduates (Lindquist, 1992). The number of jobs for workers with low-level skills is shrinking. Johnson and Packer (1987) stated that most newly created jobs call for skills considerably above the traditional basic level. Judy and D'Amico (1997) confirmed this trend and went on to suggest that the trend is growing at a speed and to an extent much greater than first anticipated. Thus, transition objectives such as preparing students with disabilities for technical and professional careers are becoming more and more critical. Attention must focus on establishing high performance expectations and increasing student independence. These objectives could possibly be addressed through experiential co-op education in postsecondary settings.

Successful transitioning from high school to adult life is becoming more dependent upon access to and success in postsecondary education and training. Accordingly, there is a substantial increase in the number of students with disabilities attending college as well as an increase in accessibility to campuses, classrooms, and programs (Thompson & Hitto, 1992). Completion of collegiate and postsecondary vocational programs have been shown to relate positively to obtaining employment for both individuals with and without disabilities (Fairweather & Shaver, 1990). However, graduates with disabilities have a higher rate of unemployment and longer job searches than graduates without disabilities (Frand, Karst, & Boles, 1989).

Co-op programs may hold promise for students with disabilities because they focus on multiple objectives: academic skills, career development, and personal growth. Programs that include components to guide career development and personal growth are critically important in meeting the needs of these students. The lack of significant numbers of individuals with disabilities in the workforce, in a broad spectrum of career fields, results in a dearth of role models for persons with disabilities and may reinforce low self-esteem and negative attitudes about their own labor market potential (Roessler & Bolton, 1978; Rojewski, 1996; Zunker, 1989).

According to Kiernan and McGaughey (1992), one way to establish identity, self-esteem, and quality of life is through employment. Employment is a primary mechanism for establishing personal and professional identity as well as realizing economic self-sufficiency. Quality of life has been equated with employment and as an indicator of independence (Schalock & Harper, 1978).

Anecdotal examples of the personal benefits of co-op education for students with disabilities support its effectiveness in both personal and economic domains. A former co-op student with a disability reported that the experience allowed him to emerge from a position of total dependence and resignation to one of independence and hope. As a result of choosing an educational program, financially supporting himself, and selecting a series of career-related employment experiences, he reported increases in self-control, self-confidence, and self-esteem (McCain, 1986).

In another example, a co-op student with disability reported that through his co-op experience he became proficient in job search methods, received encouragement and support from teachers and employers, and made professional career contacts he will utilize in the future (Riden, 1993). He noted that specific job experiences contributed to his personal growth and provided opportunities for him to apply ideas discussed in various business, sociology, and psychology classes. The student identified growth in interpersonal skills and indicated that he had a much greater understanding of what it was like to be in the workforce and how to plan strategically for career movement.

The research literature cited suggests that there are many potential benefits from co-op experience. However, these potential benefits have not been extended to persons with disabilities. Given the positive outcomes associated with co-op participation for the general population and the specific needs of students with disabilities, it seems important to determine the effectiveness of the co-op model as a service option for postsecondary students with disabilities. Taking into account the underrepresentation of persons with disabilities in the work force and their general exclusion from programs available to students without disabilities, methods for increasing participation must be investigated. To this end, in this study we assessed students with disabilities who participated in a co-op work experience to identify the effect of that experience on their ability to establish and clarify sense of purpose and develop mature interpersonal relationships as defined by Chickering (1969). Comparisons were made with co-op students without disabilities and non co-op students with and without disabilities to assess relative impact.

Methods

The study employed a quasi-experimental research design. Since random assignment was not possible, the study made use of preexisting experimental and control groups. While lack of randomization poses certain threats to internal validity, the sample was representative of the types of students served by the community college used in this study and by many other community colleges.

Participants

The participants in the experimental group consisted of 14 college sophomores who had completed a co-op experience: 7 students with disabilities and 7 students without disabilities.

The participants in the control group consisted of 14 students who had not participated in a co-op experience: 7 students with disabilities and 7 students without disabilities. The disability types included physical impairments, sensory impairments, and learning disabilities. The subjects were all single. They ranged in age from 18 to 25; 11 were males and 17 were females.

The small sample size diminishes the power of the statistical test. However, at the time of the study, the 7 students without disabilities who participated in co-op experience represented that population that volunteered to participate. This then dictated the size of the comparison groups. The fact that differences and program impact were seen with such a small sample speaks to the effect size of the co-op experience.

All students in the sample attended a suburban community college with an enrollment of 36,000 students. The experimental group comprised of all students with co-op experience served by a college office that arranges the work experience placements for students with disabilities and coordinates specialized support services. The students self-reported their disability and provided documentation of the same at the time of the intake interview. The control participants were selected through classroom announcements distributed with the assistance and permission of faculty, the Cooperative Education Office, and the Special Services Office.

Co-op experience was arranged for students once they had completed 18 hours in a particular concentration (e.g., graphic arts). The purpose of the experience was to apply skills and concepts learned in class through a related work environment (e.g., publishing company). Negotiations with co-op sites identified activities which were supportive of course content and provided opportunities for demonstration of related skills. Students paid tuition for the experience and received course credit based on the number of hours they worked per week (15, 20, 20+ hours=3, 4, 5 credits). Each student could participate in up to 3 co-op arrangements per degree concentration.

Instrumentation

The Student Developmental Task and Lifestyle Inventory (SDTLI) (Winston & Miller, 1987) measures two domains of student development: (a) establishing and clarifying a sense of purpose, and (b) developing mature interpersonal relationships (Chickering, 1969). It has been used widely with young adults 18 to 25 years of age. Respondents are asked to respond to a four-page inventory of 140 true or false items describing behaviors or tasks considered relevant to a college student's development. The statements represented behaviors students could be expected to demonstrate once they had achieved certain developmental levels in the two domains (Brogen, 1985; Brown, 1985). The instrument can be completed in approximately 50 minutes. It was developed using a sample of 3,800 college students in the United States and Canada. Internal consistency estimates using coefficient alpha were .90 for the Establishing and Clarifying Purpose Task (PUR) and .76 for the Developing Mature Interpersonal Relationships (MIR). Test-retest reliability was reported as .87 (PUR) and .80 (MIR).

The SDTI-2 was chosen because the questions and structure represented the concepts we wanted to investigate and because of its focus on college student development. Its ease of administration and reasonable administration time was well suited for the study. There was no specific inclusion of students with disabilities in the original sample used for development, but also no intentional exclusion. Given the types and levels of disability included in this study, we believe that the students in this sample were quite similar to the students included in the norming sample and that the SDTI-2 was an appropriate choice.

Procedure

After the initial identification of the experimental and control groups, the SDTLI was administered to each student. The test was administered to the co-op students after they had completed at least one 11-week work experience, equivalent of one college quarter session. Non co-op students took the SDTLI after completing at least one quarter session. Participants were told the purpose of the survey and informed of the confidentiality procedures. The instrument was administered by staff who already had an established relationship with the students. Assistance was provided to students with disabilities who needed test-taking accommodations (e.g., more time, alternate formats).

Data Analysis

Means and standard deviations were computed for the four groups defined by disability and co-op experiences, and for two groups based on co-op experience alone. Means and standard deviations were reported for the two tasks of interest (sense of purpose and mature interpersonal relationships) and for the eight subtasks (Task 1: (a) Educational Involvement, (b) Career Planning, (c) Lifestyle Planning, (d) Life Management, and (e) Cultural Participation, Task 2: (a) Tolerance, (b) Peer Relationships, and (c) Emotional Autonomy). Analysis of variance (ANOVA) was used to identify significant differences across groups. Duncan's Multiple Range Test was used to isolate differences between groups.

Results

A two-way ANOVA performed on the mean scores of the four groups defined by disability and co-op experience revealed no significant group differences ($F_{3,24}=1.58$; $p=.22$) among the groups on the Task for Establishing and Clarifying a Sense of Purpose or on five of the six subtasks (see Table 1). On the subtask Lifestyle Planning, co-op students with disabilities scored (M=8.57) significantly higher (p=.05) than non co-op students with disabilities (M=5.00). No differences ($F_{3,24}$=.31; p=.82) were seen across the four groups on the Developing Mature Relationships Task or its three subtasks (see Table 2). When divided into co-op/non co-op groups, disregarding disability, co-op students out performed non-co-op students on two

Table 1

Group Means, Standard Deviations, and Analysis of Variance Results for Establishing and Clarifying Sense of Purpose Tasks and Subtasks (N=28)

Subtasks/Task		Co-op/ **Dis	Non-co-op/ Dis	Co-op/ No Dis	Non-co-op/ No Dis	F (3,24)	p
Educational Involvement	M	10.86	9.57	9.57	7.71	1.72	.19
	s.d.	1.57	2.23	3.15	3.15		
Career Planning	M	12.57	9.43	11.86	8.57	1.36	.27
	s.d.	1.90	4.72	3.89	5.83		
Lifestyle Planning	M	8.57^{A}	5.00^{B}	7.00^{AB}	6.14^{AB}	2.96	.05
	s.d.	1.90	2.58	2.16	2.54		
Life Management	M	10.14	9.00	9.29	9.57	.16	.92
	s.d.	2.54	4.62	1.89	3.36		
Cultural Participation	M	2.86	3.14	2.86	3.14	.10	.95
	s.d.	1.86	1.35	1.07	1.07		
Task Score	M	45.00	34.71	40.57	35.14	1.58	.22
	s.d.	5.03	13.56	8.77	11.71		

*Means with the same letter are not significantly different. ** "Dis" stands for disability.

subtasks, Career Planning (M=12.21 and 9.00, respectively) and Lifestyle Planning (M=7.79 and 5.57, respectively) , and on the general task of Establishing and Clarifying a Sense of Purpose (M=42.79 and 34.93, respectively; see Table 3).

Table 2

Group Means, Standard Deviations, and Analysis of Variance Results for Developing Mature Interpersonal Relationships Tasks and Subtasks (N=28)

Subtasks/Task		Co-op/ *Dis	Non-co-op/ Dis	Co-op/ No Dis	Non-co-op/ No Dis	F (3,24)	p
Tolerance	M	4.29	5.29	4.43	4.86	.31	.82
	s.d.	2.50	2.29	1.90	1.86		
Peer Relationships	M	8.29	6.57	7.86	8.57	.79	.51
	s.d.	2.69	2.51	2.27	2.99		
Emotional Autonomy	M	3.29	3.00	4.57	5.29	1.65	.20
	s.d.	2.56	2.89	1.40	1.70		
Task Score	M	15.57	14.86	16.86	18.72	.73	.54
	s.d.	6.60	5.52	2.91	5.19		

* "Dis" stands for disability.

Table 3

Means, Standard Deviations, and Analysis of Variance Results for Comparison of Co-op and Non-Co-op Students for all Tasks and Subtasks (N = 28)

Task/Subtask		Co-op	Non-Co-op	F	p
Establishing and Clarifying	M	42.79	34.93	4.31	.05*
Sense of Purpose	s.d.	7.24	12.17		
(a) Educational	M	10.21	8.64	2.48	.13
Involvement	s.d.	2.49	2.79		
(b) Career Planning	M	12.21	9.00	4.14	.05*
	s.d.	2.97	5.11		
(c) Lifestyle Planning	M	7.79	5.57	6.29	.02*
	s.d.	2.12	2.53		
(d) Life Management	M	9.71	9.29	.13	.72
	s.d.	2.20	3.89		
(e) Cultural Participation	M	2.86	3.14	.33	.57
	s.d.	1.46	1.17		
Developing Mature	M	16.21	16.79	.08	.77
Interpersonal Relationships	s.d.	4.95	5.52		
(a) Tolerance	M	4.36	5.07	.83	.37
	s.d.	2.13	2.02		
(b) Peer Relationships	M	8.07	7.57	.25	.62
	s.d.	2.40	2.85		
(c) Emotional Autonomy	M	3.93	4.14	.06	.81
	s.d.	2.09	2.57		

*Statistically significant difference

Discussion

The results of this study support and extend the research literature on the benefits of co-op experience and its use with students with disabilities. The results also suggest implications for practice and policy. All of the above are discussed in this section as well as directions for future investigation.

Findings indicate that students with disabilities benefit from co-op experiences in ways similar to those of their nondisabled peers. The positive effects of a co-op experience on career and lifestyle planning (Weinstein, 1980; Wilson, 1974) and clarifying a sense of purpose (Laycock et al., 1992) established by previous work were supported in this study for students with and without disabilities. Evidence suggests that students with disabilities who attend postsecondary institutions benefit from participation in the same manner as their nondisabled peers and that co-op is a viable service model for those students. These results provide support for the inclusion of students with disabilities into programming for students without disabilities and indicate that identification of career goals and outcomes through co-op education benefits all students.

There are four issues that are raised by this research and findings. First, as established by the work of Chickering (1969) and Winston and Miller (1987), students with higher scores on the establishing and clarifying purpose task have more well-defined educational goals and plans, are self-directed learners, have a better understanding of the world of work, have a strong commitment to realize their career goals, and have established a personal direction in their lives. Furthermore, Lewis and Taymans (1992) maintain that autonomous skill development must be fostered and is necessary for a more complete functioning individual. If, as our results suggest, co-op experiences contribute to this development, they may be particularly critical to the career development of individuals with disabilities who often lack these skills and the opportunity to develop them. Development of such skills seems essential for persons with disabilities to realize a more normal life and opportunities. In fact, these outcomes might be the goal of education for all students.

Second, students with higher scores on the career planning subtask indicated that they have more awareness of the world of work; greater understanding of their own abilities and limitations; a better knowledge of emotional, educational, and skill requirements for various occupations; and have taken steps to prepare themselves for beginning a job search and eventual employment. Rojewski (1996) suggests that lower expectations experienced by people with disabilities as a result of discrimination, social attitudes, cultural expectations, and stereotypes may generate systemic or self-imposed limits on educational or occupational aspirations. Co-op work experience may be able to arrest these negative developments and even reverse the process. We can not afford to miss this opportunity with these at-risk students.

Third, students with higher scores on the lifestyle planning subtask demonstrated more personal direction and orientation in their lives, including personal, ethical, and religious values; future family plans; and vocational and educational objectives. These skills are associated with a logical progression towards and achievement of positive post-school outcomes. Given the poor employment and independent living outcomes cited for persons with disabilities, it would seem possible that co-op experience could facilitate development in another area of critical need. The President's Committee on Employment of People with Disabilities (1997) reports that as of 1994, the last year surveyed, 47.7% of all working age Americans with disabilities and 73.9% of those persons with severe disabilities are not participating in the workforce either full- or part-time in comparison to 17.9% of the general population. The independent living outcomes associated with such dismal employment statistics are frightening. In fact, Blackorby and Wagner (1996) report that youth with disabilities lag behind their peers without disabilities in employment and independent living outcomes. Further research is needed to explore how students with co-op experience fare in terms of employment and independent living outcomes. It would also seem logical to examine the extent to which co-op experience could be extended to persons with severe disabilities, who currently probably do not gain access to community colleges and have the poorest outcomes of all.

Finally, to reinforce all that has been stated previously, the single significant finding in the two-way ANOVA (Table 1) in the area of Lifestyle Planning provides some indication of the extent to which a co-op experience addresses the needs of students with disabilities. Students with disabilities who did not participate in a co-op experience were less able to conduct lifestyle planning than students with disabilities who participated in co-op. These students also scored commensurate with their non-disabled peers. This would seem to indicate that limiting access of students with disabilities to co-op experience withholds an experience from which they can benefit. Provision of those opportunities has the potential to bring these students up to the level of their peers without disabilities.

It did not appear that participation in a co-op programs significantly influenced the interpersonal relationships for either students with disabilities or the general population. Given the importance of interpersonal factors in job acquisition and retention (Lagomarcino, 1990), this is a disappointing finding that warrants further investigation. It may be that co-op experiences should be designed to explicitly address and support interpersonal development through faculty/employer mentoring, coworker/peer group sessions, or other means.

We recognize that this is only an initial investigation into the benefits of co-op experience for students with disabilities. Larger scale cross-sectional or longitudinal studies aimed at assessing outcomes such as employment success or quality of life are logical next steps for inquiry. Research should delve into the issues of access, and expectations, and high school curriculum, and compare the quality of high school programs for students with and without disabilities. With additional empirical evidence, sound policy could be formulated addressing access, equity, implementation, and evaluation of co-op as well as its role in the School-to-Work Initiative.

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